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Exhibit No.: \_\_\_\_\_  
Date: January 29, 2026  
Witness(es): Various

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**PACIFIC GAS AND ELECTRIC COMPANY**  
**2024 WILDFIRE MITIGATION AND CATASTROPHIC EVENTS**  
**SECOND ERRATA TO PREPARED TESTIMONY**  
**(CLEAN VERSION)**

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PACIFIC GAS AND ELECTRIC COMPANY  
 2024 WILDFIRE MITIGATION AND CATASTROPHIC EVENTS  
 SECOND ERRATA TO PREPARED TESTIMONY  
 (CLEAN VERSION)

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**PACIFIC GAS AND ELECTRIC COMPANY**

**CHAPTER 1**

**INTRODUCTION AND OVERVIEW**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 1  
INTRODUCTION AND OVERVIEW

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1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2   **CHAPTER 1**  
3                                   **INTRODUCTION AND OVERVIEW**

4   **A. Introduction**

5           Pacific Gas and Electric Company (PG&E or the Company) respectfully  
6           requests authorization from the California Public Utilities Commission (CPUC or  
7           Commission) to recover costs recorded in various balancing and memorandum  
8           accounts requiring reasonableness review. In accordance with applicable law  
9           and policy, PG&E seeks recovery of incremental costs incurred in connection  
10          with: (1) work performed in response to government-declared catastrophic  
11          events to repair damaged facilities, restore utility services, and serve our  
12          customers, (2) wildfire mitigation and gas compliance work completed in  
13          connection with the Butte Community Rebuild Program in the Town of  
14          Paradise;<sup>1</sup> (3) work performed to support Gas Operations, including gas storage  
15          and gas compliance activities; and (4) various other customer-focused initiatives.  
16          The work activities performed are critical for the continued safe and reliable  
17          operation of the electric and gas system.

18   **B. Summary of Work and Overview of Request**

19          Through this application, PG&E is requesting \$79.9 million in expense and  
20          \$520.4 million in capital related to the work performed and recorded in the  
21          various balancing and memorandum accounts listed in the table below.

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<sup>1</sup> Decision (D.) 23-11-069 (2023 GRC Decision) required review of Butte Community Rebuild Program costs in a Catastrophic Events Memorandum Account (CEMA) proceeding.

**TABLE 1-1  
SUMMARY OF REQUEST  
(THOUSANDS OF DOLLARS)**

Line No.	Chapter	Account	Expense	Capital
1	Chapter 2: ED CEMA	Catastrophic Event Memorandum Account (CEMA)	\$43,736	\$30,081
2	Chapter 3: Community Butte Rebuild	CEMA	2,080	361,457
3	Chapter 4: Gas CEMA	CEMA	1,064	7,180
4	Chapter 5: Generation CEMA	CEMA	2,725	2,049
5	Chapter 6: GSRRMA	Gas Statutes Regulations and Rules Memorandum Account (GSRRMA)	3,582	3,983
6	Chapter 7: GSBA	Gas Storage Balancing Account (GSBA)	9,015	115,667
7	Chapter 8: CAVAMA	Climate Adaptation Vulnerability Assessment Memorandum Account (CAVAMA)	1,063	–
8	Chapter 9: Other Misc. Memo Accounts	COVID-19 Pandemic Protections Memorandum Account (CPPMA)	2,342	–
9		Disconnections Memorandum Account (DMA)	5,717	–
10		Percentage of Income Payment Plan Memorandum Account (PIPPMA)	1,525	–
11		Emergency Consumer Protections Memorandum Account (ECPMA)	1,363	–
12		Medium-Large Commercial and Industrial COVID-19 Disconnection Moratorium Memorandum Account (ML-CDMMA)	1,217	–
13		CPPMA Incremental Uncollectibles	4,436	–
14		Microgrids Memorandum Account (MGMA)	111	–
15	Grand Total		\$79,975	\$520,418

**1. Catastrophic Event Response (Other Than Butte Community Rebuild)**

PG&E’s CEMA costs are recorded pursuant to Pub. Util. Code Section 454.9, which authorizes utilities to record costs of “restoring utility service to customers,” “repairing, replacing, or restoring damaged utility facilities,” and “complying with governmental agency orders” in connection with declared disasters. The wildfire and weather-related CEMA work described in this application pertain to thirty-nine events that occurred between 2017 and December 2023.

1 PG&E's CEMA response activities involved multiple functional areas  
2 within the company necessary to repair, restore, and replace damaged  
3 Electric Distribution, Gas, and Power Generation facilities, and restore utility  
4 services to support customers as expeditiously as possible. These critical  
5 work activities resulted in incremental costs beyond those recovered in  
6 PG&E's General Rate Case (GRC) or other proceedings.

7 Chapters 2 through 5 discuss our CEMA work and associated costs in  
8 further detail.

## 9 **2. Butte Community Rebuild Program**

### 10 **a. Program Activities**

11 PG&E initiated the Butte Community Rebuild Program in 2019 to  
12 begin a widescale restoration and rebuilding of PG&E's distribution  
13 electric and gas system infrastructure in and around the Town of  
14 Paradise, in Butte County, California. The Butte Community Rebuild  
15 Program includes various discrete workstreams to restore electric  
16 assets damaged by the fire, mitigate wildfire risk going forward, and  
17 replace gas assets to address a known safety risk. PG&E viewed the  
18 program holistically to take advantage of economies of scale and avoid  
19 separate retrenching for gas activities. To this end, the Butte  
20 Community Rebuild Program consists of the following activities:

- 21 • Restoration Activities: Like-for-like replacement work including:  
22 (1) restoring certain previously-underground electric and gas assets  
23 impacted by the fire; and (2) restoring disconnected electric and gas  
24 service to customers who returned to their homes.
- 25 • Wildfire Mitigation: System Hardening work including  
26 (1) undergrounding previously overhead electric distribution assets  
27 for wildfire mitigation and wildfire safety purposes<sup>2</sup> in Tier 2/3 High  
28 Fire Threat Districts<sup>3</sup> (HFTD) areas and other adjacent high fire  
29 threat areas; and (2) overhead hardening of certain electric

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2 This includes undergrounding of overhead assets to allow for safer ingress and egress in the event of a wildfire.

3 Tier 2 HFTD represents an elevated risk of wildfire and Tier 3 HFTD represents an extreme risk of wildfire. See D.17-12-024.

1 distribution assets outside of planned undergrounding areas but in  
2 the HFTD.

- 3 • Gas Compliance Activities: Replacement of certain portions of gas  
4 facilities undamaged by the fire to meet current gas regulations.  
5 PG&E decided to complete this compliance work on undamaged  
6 facilities to leverage the underground trenching already underway to  
7 save trenching costs and minimize the impact on customers.

8 PG&E remains committed to reducing wildfire risk to keep  
9 customers and communities safe. Over the last several years, PG&E  
10 has developed an integrated strategy to manage and reduce ignition  
11 risk. PG&E's Wildfire Mitigation Plan (WMP) details how PG&E reduces  
12 ignition risk using comprehensive monitoring and data collection  
13 programs; operational mitigations like Enhanced Powerline Safety  
14 Settings (EPSS) and Downed Conductor Detection; system resilience  
15 mitigations like distribution undergrounding; and community  
16 engagement to address wildfire preparation.<sup>4</sup> The wildfire mitigation  
17 work incurred for PG&E's Butte Community Rebuild Program under  
18 review in this proceeding adheres to this commitment and was the  
19 appropriate and prudent measure for wildfire mitigation in the Town of  
20 Paradise and nearby areas, consistent with state policy and applicable  
21 regulatory standards. For example, the California Wildfire Mitigation  
22 Program encourages wildfire resilience measures to create  
23 fire-resistance homes, businesses, public buildings and public spaces.<sup>5</sup>  
24 Because wildfire is the most significant risk for California's investor  
25 owned utilities, California created a special process and agency, the  
26 Office of Energy Infrastructure Safety, that is focused on reducing  
27 wildfire risk.<sup>6</sup> Indeed, Butte County is situated in a high wildfire risk area

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4 PG&E's 2023-2025 Base Wildfire Mitigation Plan, R6, (July 5, 2024), available at:  
<<https://www.pge.com/en/outages-and-safety/safety/community-wildfire-safety-program.html#accordion-99016a73ab-item-c788794778>> (accessed Nov. 14, 2024).

5 California Wildfire Mitigation Program (CWMP), available  
at:<<https://osfm.fire.ca.gov/committees/california-wildfire-mitigation-program#:~:text=Know%20as%20the%20California%20Wildfire.public%20buildings%20and%20public%20spaces.>>> (accessed Nov. 20, 2024).

6 Assembly Bill 1054, (Date Published July 12, 2019).

1 and has experienced many wildfires from 1930 to 2020<sup>7</sup>. Given the  
2 history of fires in this area, PG&E’s decision to underground electric  
3 distribution lines in the Town of Paradise virtually eliminates the ignition  
4 risk from utility assets, protects the community from potential future  
5 wildfires, and eliminates the need to rebuild overhead assets any time a  
6 fire occurs in the future.

7 **b. Incremental Costs Requested For Recovery**

8 A significant portion of the 2020-2022 costs in the Butte Community  
9 Rebuild Program involved wildfire mitigation and gas operations work  
10 separately forecasted and approved in PG&E’s 2020 General Rate  
11 Case. There is also a small portion of unreviewed 2020-2022 costs that  
12 were not included in any prior cost recovery requests.<sup>8</sup> The 2023 costs  
13 associated with Butte Community Rebuild work was previously forecast  
14 in PG&E’s 2023 General Rate Case (GRC), but subsequently removed  
15 pursuant to D.23-11-069.<sup>9</sup> PG&E is now requesting the Commission  
16 approve the following:

- 17 1) The incremental revenue requirements (RRQ) associated with costs  
18 found reasonable in PG&E’s 2020 General Rate Case (GRC);<sup>10</sup>
- 19 2) The incremental costs and incremental revenue requirements  
20 originally included by PG&E in its 2023 GRC<sup>11</sup> but removed by the  
21 Commission in its 2023 GRC decision;<sup>12</sup> and
- 22 3) Certain 2020-2022 incremental costs and associated revenue  
23 requirements that were not included in PG&E’s 2020 GRC and 2023  
24 GRC and thus have not been reviewed for reasonableness.

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7 Chapter 3, Figure 3-1.

8 PG&E deferred submitting these costs for review pending the finalization of insurance proceeds and further adjustments.

9 D.23-11-069, p. 479. In addition, p. 910, Ordering Paragraph (OP) 38 required PG&E to submit a table in prepared testimony found in PG&E-04 at WP Table 23-13. The required table is provided in Chapter 3 – Attachment A.

10 Application (A).18-12-009, Hearing Exhibit (HE)-10: Exhibit (PG&E-3), Chapter 4, HE-16: Exhibit (PG&E-4), Chapter 2A.

11 A.21-06-021, Exhibit (PG&E-3), Chapter 4, Exhibit (PG&E-4), Chapter 23.

12 D.23-11-069, p. 481. The Commission held that “PG&E may seek recovery of the costs presented in PG&E Ex-04 at WP Table 23-13 in a CEMA application.”

1 The work to complete the activities within the Butte Community  
2 Rebuild Program are further described in Chapter 3. Chapter 3, Table  
3 3-3 summarizes PG&E's cost-recovery request for the Butte Community  
4 Rebuild Program.

### 5 **3. Gas Initiatives**

6 PG&E's Gas Operations performed work related to Gas Transmission &  
7 Storage, with costs recorded in the Gas Statutes Regulations and Rules  
8 Memorandum Account (GSRRMA) and Gas Storage Balancing Account  
9 (GSBA).

10 The GSRRMA includes incremental costs to comply with: (1) new  
11 federal or state statutes, regulations and rules, or (2) any new or changed  
12 interpretation by a regulatory body of statutes, regulations, or rules issued  
13 between GRC funding cycles. PG&E was unable to incorporate a forecast  
14 of these costs into the 2023 GRC because the scope and extent of any new  
15 statutes, regulations and rules are unknown.

16 Separately, the GSBA is used to track and record costs for  
17 implementing regulations issued by the California Department of  
18 Conservation and California Energy Management Division (CalGEM) for gas  
19 storage assets.<sup>13</sup> Costs recorded in the GSBA are subject to  
20 reasonableness review. This application seeks reasonableness review, but  
21 not cost recovery, of these costs. The reason that PG&E does not seek cost  
22 recovery here is that the GSBA is a two-way balancing account with an  
23 authorized revenue requirement in the 2023 GRC. Any overcollection or  
24 undercollection of the GSBA will be presented in a separate proceeding at  
25 the conclusion of the 2023 GRC rate case period.

26 Chapter 6 discusses the GSRRMA and Chapter 7 discusses the GSBA

### 27 **4. Climate Initiative**

28 In response to Commission directives, PG&E performed climate  
29 vulnerability assessment and customer outreach work to address climate  
30 change issues in existing utility planning and investment processes. These  
31 activities resulted in incremental costs to PG&E's 2023 GRC.

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<sup>13</sup> CalGEM was previously known as the Division of Oil, Gas and Geothermal Resources (DOGGR).

1 The Climate Adaptation Vulnerability Assessment Memorandum  
2 Accounts (CAVAMA) were established by the CPUC as part of Rulemaking  
3 (R.) 18-04-019 to record costs ordered in D.20-08-046 to support new  
4 requirements established by D.19-10-054 and D.20-08-046. The  
5 Commission directed the IOUs to establish the CAVAMA “for the purpose of  
6 tracking costs directly related to the vulnerability assessments ordered...” as  
7 well as “incremental costs associated with community outreach plans and  
8 activities related to Community Engagement Plans and surveys.”<sup>14</sup>

9 Chapter 8 discusses this initiative.

## 10 **5. Other Initiatives**

11 PG&E continued various customer-focused initiatives in 2023, including  
12 implementing: (1) emergency consumer protections during a government  
13 declared emergency event that has resulted in a loss, disruption, or  
14 degradation of utility services; (2) billing related protections and  
15 uncollectibles for residential and small business customers impacted by the  
16 Coronavirus (COVID19) pandemic; (3) policies that aim to mitigate  
17 residential disconnections; (4) implementing a moratorium on  
18 disconnections for eligible medium-large commercial and industrial  
19 customers; (5) the percentage of Income Payment Plan Memorandum Pilot;  
20 and (6) build grid resilience through PG&E’s microgrid program by installing  
21 temporary generation and developing plans to enable microgrid solutions to  
22 reduce the potential impact of PSPS events on customers. These activities  
23 were conducted in response to various legislative or regulatory requirements  
24 arising after PG&E’s 2023 GRC and are incremental to costs recovered in  
25 PG&E’s base rates.

26 Emergency consumer protections - Issued on April 2, 2018, the  
27 Commission opened “Order Instituting Rulemaking [OIR] Regarding  
28 Emergency Disaster Relief Program to Support California Residents.” The  
29 OIR was opened to establish a permanent set of post-disaster consumer  
30 protection measures that can be implemented expeditiously following a

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<sup>14</sup> D.20-08-046, p. 52.

1 triggering event rather than needing a Commission resolution each time.<sup>15</sup>  
2 The Commission authorized PG&E to record incremental costs associated  
3 with implementing the mandated emergency consumer protections to the  
4 Emergency Consumer Protections Memorandum Account (ECPMA).<sup>16</sup>  
5 Costs associated with implementation of emergency consumer protections  
6 are not included within the 2023 GRC on a forecast basis because disaster  
7 events which trigger the protections cannot be forecasted.

8 Billing-Related Protections and Uncollectibles – Commission  
9 Resolution M-4842 directed PG&E to establish the CPPMA to track and  
10 record costs associated with billing-related protections for residential and  
11 small business customers impacted by the Coronavirus (COVID-19)  
12 pandemic. Additionally, incremental uncollectibles associated with the  
13 COVID-19 pandemic were also recorded to the CPPMA. These costs could  
14 not have been forecasted reliably in the 2023 GRC due to the timing of the  
15 work and uncertainty with associated costs.

16 Disconnection-Related Policies – On September 28, 2017, Governor  
17 Brown signed Senate Bill (SB) 598 into law. SB 598 requires the  
18 Commission to develop rules, policies, or regulations with a goal of reducing  
19 the statewide disconnection rate of gas and electric utility customers by  
20 January 1, 2024.<sup>17</sup> D.20-06-003 implemented specific requirements in  
21 SB 598 and created policies to help meet that goal. The emergent work that  
22 was authorized via this decision in 2020 could not have been forecasted  
23 reliably. Therefore these costs were not included within the 2023 GRC and  
24 were tracked in the Disconnections Memorandum Account (DMA).

25 Medium-Large Commercial and Industrial Disconnection Moratorium –  
26 As a result of the pandemic, the CPUC mandated a moratorium on  
27 disconnection for medium-large commercial and industrial customers.  
28 D.21-04-015 authorized PG&E to record incremental expense related to the  
29 implementation of the moratorium in the Medium Large Commercial and  
30 Industrial COVID-19 Disconnection Moratorium Memorandum Account

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<sup>15</sup> Order Instituting Rulemaking (OIR) R.18-03-011, Regarding Emergency Disaster Relief Program to Support California Residents, p. 5.

<sup>16</sup> D.19-07-015, p. 64, OP 4.

<sup>17</sup> D.20-06-003, pp. 4-5.

1 (ML-CDMMA). Similar to the other requirements stemming from the  
2 pandemic, the costs for the emergent work could not have been forecasted  
3 reliably in the 2023 GRC due to timing and uncertainty.

4 Percentage of Income Payment Plan (PIPP) Pilot – D.20-06-003  
5 established a ratesetting phase for the proceeding to consider the  
6 Percentage of Income Payment Plan. D.21-10-012 authorized the large  
7 IOUs to implement PIPP pilot programs, which set participants’ utility bill  
8 payment amounts at an affordable percentage of the participant’s monthly  
9 income. Pursuant to the decision, utilities are authorized to record bill  
10 discounts in two way PIPP balancing accounts and administrative costs in  
11 PIPP Memorandum Accounts (PIPPMA). For this reason, these costs were  
12 not included in the 2023 GRC.

13 Microgrids – The Microgrids Memorandum Account (MGMA) as  
14 authorized by CPUC as part of R.19-09-009 allows PG&E to record the  
15 costs for substation microgrid related programs in the MGMA for subsequent  
16 reasonableness review and cost recovery.<sup>18</sup> Pursuant to D.22-11-009,  
17 PG&E established the 2023 Temporary Generation Subaccount in the  
18 MGMA to track incremental expenses specifically for safe to energize  
19 substations affected by transmission level PSPS events during the 2023 fire  
20 season.<sup>19</sup>

21 Chapter 9 discusses these initiatives.

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**18** In September 2019, the Commission opened the Microgrids OIR (OIR Regarding Microgrids Pursuant to Senate Bill (SB) 1339 and Resiliency Strategies) to facilitate the commercialization of microgrids and adopt resiliency strategies pursuant to SB 1339. D.20-06-017 authorized PG&E to record the costs for substation microgrid related programs in the MGMA for subsequent reasonableness review and cost recovery (pp. 128-129, OP 12, and OP 14, pp. 130-131, OP 16).

**19** On November 3, 2022, the Commission issued D.22-11-009 regarding PG&E’s application proposing a framework for substation microgrid solutions to mitigate PSPS events and included the requirement that PG&E track and record costs related to single season, temporary generators for substation microgrids pursuant to D.20-06-017 in new Single Season, Temporary Generator subaccount for the 2023 fire season onwards.

1 **C. Accounting Adjustments**

2 **1. Adjustments to Butte Community Rebuild Program Costs**

3 PG&E’s application seeks the recovery of costs for Butte Community  
4 Rebuild, net of the following four accounting adjustments totaling  
5 approximately \$1.2 billion:

- 6 1) Wildfire OII Disallowance;<sup>20</sup>  
7 2) Assembly Bill (AB) 1054 Securitization;  
8 3) Insurance Proceeds; and  
9 4) Ernst & Young (EY) Recommended Adjustments.

10 Chapters 3 and 11 discuss these four adjustments in further detail.

11 **2. Other Non-Butte Related Adjustments**

12 PG&E also has reduced the amount it seeks for other CEMA costs by  
13 approximately \$0.54 million through the following two accounting  
14 adjustments:

- 15 1) EY Recommended Adjustments; and  
16 2) Removal of the CEMA capitalized administrative and general (A&G)  
17 costs.

18 Chapter 11 discusses these two adjustments in further detail.

19 **D. Ratemaking and Customer Impacts**

20 PG&E proposes to recover a total revenue requirement of \$421 million  
21 (excluding interest and Revenue Fees and Uncollectibles) associated with the  
22 wildfire mitigation, catastrophic events, community rebuild program, and other  
23 balancing and memorandum accounts costs under review in this proceeding.

24 **E. Organization of Remainder of Testimony**

25 The remainder of the testimony in support of PG&E’s application is  
26 organized as follows:

- 27 • Chapter 2 – Presents Electric Distribution response and recovery work  
28 recorded to CEMA.  
29 • Chapter 3 – Presents Community Butte Rebuild work recorded to CEMA.  
30 • Chapter 4 – Presents Gas response and recovery work recorded to CEMA.

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20 D.20-05-019.

- 1 • Chapter 5 – Presents Power Generation response and recovery work  
2 recorded to CEMA.
- 3 • Chapter 6 – Presents Gas work recorded to the GSRRMA.
- 4 • Chapter 7 – Presents Gas work recorded to the GSBA.
- 5 • Chapter 8 – Presents costs recorded to the CAVAMA.
- 6 • Chapter 9 – Presents Customer Care costs recorded to DMA, PIPPMA,  
7 ECPMA, CCPAMA, CCPMA uncollectibles, ML-CDDMA, and MGMA.
- 8 • Chapter 10 – Demonstrates that the costs included in this application are  
9 incremental and not recovered elsewhere in rates.
- 10 • Chapter 11 – Describes the adjustments made to the costs included in this  
11 application.
- 12 • Chapter 12 – Presents the revenue requirement associated with the  
13 incremental costs in this application.

14 **F. Conclusion**

15 The costs PG&E presents in this application are for activities that were  
16 necessary to restore, rebuild, improve and maintain the safety and reliability of  
17 our system and are consistent with the policies underlying the establishment of  
18 the afore-mentioned memorandum and balancing accounts and with the  
19 requirements of Pub. Util. Code Section 454.9.

**PACIFIC GAS AND ELECTRIC COMPANY**

**CHAPTER 2**

**ELECTRIC: CEMA**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 2  
ELECTRIC: CEMA

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1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **CHAPTER 2**  
3 **ELECTRIC: CEMA**

4 **A. Introduction**

5 This chapter discusses costs incurred by Pacific Gas and Electric  
6 Company's (PG&E) Electric Distribution functional area for the following  
7 government-declared catastrophic events:

- 8 • Pre-2023 Catastrophic Event Memorandum Account (CEMA) Events; and
- 9 • 2023 Tropical Storm Hilary.

10 This chapter demonstrates the necessity and reasonableness of the  
11 activities PG&E completed to: (1) repair damaged electric distribution facilities,  
12 and (2) restore service to customers. PG&E's responses to these events were  
13 coordinated and managed so that service could be restored to PG&E customers  
14 as quickly and efficiently as possible. The activities PG&E completed were  
15 necessary and reasonable to eliminate potentially hazardous conditions,  
16 communicate with customers, repair, or replace damaged facilities, and restore  
17 vital electric service.

18 The remainder of this chapter is organized as follows:

- 19 • Section B provides a summary of the cost-recovery request;
- 20 • Section C explains the costs incurred by PG&E in response to CEMA  
21 events; and
- 22 • Section D provides a brief conclusion.

23 **B. Summary of Request**

24 PG&E seeks recovery of \$43.7 million in expenses and \$30.1 million in  
25 capital expenditures for restoration and repair activities of its electric distribution  
26 system related to the CEMA events listed above. Of those totals, PG&E seeks  
27 recovery of only those CEMA-eligible incremental capital and expense costs that  
28 PG&E has not requested cost-recovery in a prior proceeding.

29 Table 2-1 provides a detailed breakdown of the CEMA-eligible costs by:  
30 CEMA Event; Major Work Category (MWC) 95 (Capital); and MWC IF  
31 (Expense).

**TABLE 2-1  
CEMA-ELIGIBLE ELECTRIC DISTRIBUTION BREAKDOWN OF  
EXPENDITURES FOR CEMA EVENTS  
(THOUSANDS OF DOLLARS)**

Line No.	Event by Year	Total Spend	
		Expense MWC IF	Capital MWC 95
1	Events Prior to 2020	\$316	\$(369)
2	Events Related to 2020	1,908	(650)
3	Events Related to 2021	(1,057)	4,642
4	Events Related to 2022	865	116
5	Events Related to 2023	40,516	24,234
6	Prior Events Subtotal	\$42,549	\$27,973
7	2017 Nuns Fire	188	227
8	2023 Tropical Storm Hilary	999	1,881
9	Grand Total	\$43,736	\$30,081

1           The amounts referenced above are the amounts incurred in counties in  
2           which a state of emergency was declared by a competent state or federal  
3           authority.<sup>1</sup>

4           Occasionally, PG&E incurred costs related to these events outside of the  
5           declared counties. Table 2-2 below shows the Electric Distribution systemwide  
6           costs incurred relating to these events, which total \$68.8 million in expense and  
7           \$52.1 million in capital expenditures. PG&E is not seeking recovery of costs  
8           incurred outside of the declared counties within this application.

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<sup>1</sup> For Emergency Declarations associated with the Events in this chapter see the workpapers supporting Chapter 1.

**TABLE 2-2  
SYSTEM WIDE ELECTRIC DISTRIBUTION BREAKDOWN OF  
EXPENDITURES FOR CEMA EVENTS  
(THOUSANDS OF DOLLARS)**

Line No.	Event by Year	Total Spend	
		Expense MWC IF	Capital MWC 95
1	Events Prior to 2020	\$324	\$(494)
2	Events Related to 2020	1,908	(567)
3	Events Related to 2021	134	3,046
4	Events Related to 2022	4,313	2,501
5	Events Related to 2023	60,909	45,747
6	Prior Events Subtotal	\$67,588	\$50,233
7	2017 Nuns Fire	188	227
8	2023 Tropical Storm Hilary	999	1,881
9	Grand Total	\$68,775	\$52,341

**C. Damages to PG&E’s Electric Distribution Facilities and Restoration Activities**

The activities described in this chapter include PG&E’s response to both extreme weather events and wildfires declared by the state governor or by another competent state or federal authority as catastrophic events.

Wildfires are different from winter storms in terms of their impact on assets. Winter storms cause damage to electric distribution facilities that is often widespread, involves large portions of the service territory simultaneously, and can be comparatively short in duration. A winter storm passes through the service territory, damaging facilities and sometimes causing a large volume of outages to customers. For winter storms, PG&E is the response owner and manages the pace of restoration.

In contrast, wildfires are concentrated in a specific geographic area and can be far more damaging in a local area.<sup>2</sup> Wildfires can last for an hour or weeks. Influenced by factors such as humidity, wind speed and direction, available fuel, and topography; fires can change direction or rate of spread, making them challenging to predict. Response to wildfires is led by the jurisdictional fire agency, usually California Department of Forestry and Fire Protection or the United States Forest Service. Access to infrastructure impacted by the fire is

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<sup>2</sup> Earthquakes also generally result in damage in a localized area.

1 granted by the fire Incident Commander (IC). This increases the level of  
2 coordination required between PG&E and the IC and may involve an extended  
3 response based on the activity, fire ground safety and/or the level of complexity  
4 of the incident.

5 Damage to the electric distribution system is also different in a winter storm  
6 than in a wildfire. Winter storms may break poles, cross arms, spans of wire, or  
7 other facilities at intermittent locations within the impacted division, and  
8 generally involve a large, widespread volume of outage location. In contrast, a  
9 wildfire may destroy all electric distribution facilities in its path. Depending on  
10 the geographic concentration of a wildfire, the outage scope may be smaller  
11 than during a winter storm. In some instances, circuits can be de-energized in  
12 advance of the wildfire spread to protect firefighters and the public from  
13 exposure to energized distribution conductors. Restoration activities following a  
14 fire often involve replacing all the assets and components in the wildfire's path,  
15 rather than portions of assets or components such as a cross arms or a broken  
16 pole.

17 The CEMA events for which PG&E is seeking cost recovery in this  
18 application are described in detail below:

### 19 **1. Costs Related to CEMA Events Prior to 2023**

20 Restoration activities for a CEMA event may occur over several years as  
21 customers return to their homes, and business restoration efforts to supply  
22 service for these customers resumes. Therefore, PG&E may continue to  
23 incur CEMA costs in the years following a CEMA event.

#### 24 **a. Events Prior to 2020**

25 PG&E continued to restore damaged distribution infrastructure in  
26 response to customer requests for the following pre-2020 CEMA  
27 events:<sup>3</sup> (1) 2017 Jan MARS Storm, (2) 2017 October Fires, (3) 2018  
28 Carr Fire, (4) 2018 Mendocino Complex fire (5) 2019 January February  
29 Severe Storms, (6) 2019 October Wind Event, (7) 2019 Bethel Island  
30 Fire, and (8) 2019 Camino Fire. PG&E incurred costs for these activities  
31 totaling \$0.3 million in expense and a credit of \$0.4 million in capital.

32 The activities included installing 11 spans of distribution conductor.

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3 A.19-09-012 Exhibit (PG&E-01) and A.20-09-019, Exhibit (PG&E-01).

**TABLE 2-3  
EVENTS PRIOR TO 2020  
BREAKDOWN OF COSTS BY EVENT  
(THOUSANDS OF DOLLARS)**

Line No.	Event Name	Expense MWC IF	Capital MWC 95	CEMA-Eligible Spending
1	2017 Jan MARS Storm	-	\$(4)	\$(4)
2	2018 Carr Fire	\$157	(7)	148
3	2018 Mendocino Complex Fire	-	(73)	(73)
4	2019 January February Severe Storms	161	(238)	(78)
5	2019 October Wind Event	-	(11)	(11)
6	2019 Bethel Island Fire	-	(24)	(24)
7	2019 Camino Fire	-	(12)	(12)
8	Total Events Prior to 2020	\$316	\$(368)	\$(52)

**TABLE 2-4  
EVENTS PRIOR TO 2020  
COST ELEMENT BREAKDOWN OF COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$136
2	Labor	314
3	Materials	102
4	Other	(604)
5	Total	\$(52)

1           **b. 2020 Events**

2                       PG&E continued to restore damaged distribution infrastructure in  
3 response to customer requests for several 2020 August/September Fire  
4 and Heat Events (listed in Table 2-5 below). PG&E incurred additional  
5 costs for these activities totaling \$1.9 million in expense and a credit of  
6 \$0.7 million in capital. The activities included installing three poles, eight  
7 transformers, and 63 spans of distribution conductor.

8                       Table 2-7 and Table 2-8 provides an additional breakdown of the  
9 total costs by contract, labor, materials, and other.

**TABLE 2-5  
EVENTS RELATED TO 2020 EVENTS  
BREAKDOWN OF COSTS BY EVENT  
(THOUSANDS OF DOLLARS)**

Line No.	Event Name	Expense MWC IF	Capital MWC 95	CEMA-Eligible Spending
1	2020 Aug 14 Fire & Ext Heat Event	\$947	–	\$947
2	2020 Aug 14-20 Heat Event	–	\$(22)	(22)
3	2020 Aug Carmel Fire	–	(97)	(97)
4	2020 Aug CZU Complex Fire	454	(50)	404
5	2020 Aug LNU Complex Fire	15	(834)	(819)
6	2020 Aug SCU Fire	2	(18)	(16)
7	2020 August Complex Fire	–	(48)	(48)
8	2020 Sep Glass Fire	18	(303)	(284)
9	2020 Sep North Complex Fire	470	451	921
10	2020 Sept Creek Fire	–	156	156
11	2020 Sept Ext Heat Event	–	18	18
12	Total 2020-Related Events	\$1,908	\$(650)	\$1,258

**TABLE 2-6  
EVENTS RELATED TO 2020 EVENTS  
COST ELEMENT BREAKDOWN OF COSTS  
(THOUSAND OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$3,343
2	Labor	1,593
3	Materials	720
4	Other	(4,398)
5	Total	\$1,258

**c. 2021 Events**

During 2023, PG&E continued to restore damaged distribution infrastructure in response to customer requests for several 2021 CEMA events (listed in Table 2-7 below). PG&E incurred additional costs for these activities, totaling a credit of \$1 million in expense and expenditures of \$4.6 million in capital. The activities included installing one transformer, and 17 spans of distribution conductor.

Table 2-7 summarizes the costs and credits incurred for these events, Table 2-8 provides an additional breakdown of the total costs by contract, labor, materials, and other.

**TABLE 2-7  
2021 CEMA-RELATED EVENTS  
BREAKDOWN OF COSTS BY EVENT  
(THOUSANDS OF DOLLARS)**

Line No.	Event Name	Expense MWC IF	Capital MWC 95	CEMA-Eligible Spending
1	2021 January Wind Event (CEMA)	\$(1)	–	\$(1)
2	2021 June Extreme Heat Event	5	\$(11)	(6)
3	2021 August Monument Fire Event	5	2,104	2,109
4	2021 August Caldor Fire Event	295	1,015	1,310
5	2021 August Cache Fire Event	0	(362)	(362)
6	2021 August River Fire Event	12	200	212
7	2021 August Washington Fire Event	–	(57)	(57)
8	2021 September Hopkins Fire	–	(59)	(59)
9	2021 October Northeast Pacific Bomb Cycle	(811)	(65)	(877)
10	2021 December Storms	(562)	1,879	1,317
11	Total 2021-Related Events	\$(1,057)	\$4,642	\$3,585

**TABLE 2-8  
EVENTS RELATED TO 2021  
COST ELEMENT BREAKDOWN OF COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$1,727
2	Labor	432
3	Materials	1,893
4	Other	(467)
5	Total	\$3,585

**d. 2022 Events**

During 2023, PG&E continued to restore damaged distribution infrastructure in response to customer requests for several 2022 CEMA events (listed in Table 2-9 below). PG&E incurred additional costs for these activities, totaling a \$0.9 million in expense and \$0.1 million in capital. The activities included installing one pole, one transformer, and six spans of distribution conductor.

Table 2-9 summarizes the costs incurred for these events, and Table 2-10 provides an additional breakdown of the total costs by contract, labor, materials, and other.

**TABLE 2-9  
2022 CEMA-RELATED EVENTS  
BREAKDOWN OF COSTS BY EVENT  
(THOUSANDS OF DOLLARS)**

Line No.	Event Name	Expense MWC IF	Capital MWC 95	CEMA-Eligible Spending
1	2022 Oak Fire	\$99	\$248	\$347
2	2022 Aug-Sep Heat Event	276	(164)	112
3	2022 Fork Fire	87	27	115
4	2022 Humboldt County Earthquake	403	4	407
5	Total 2022-Related Events	\$865	\$116	\$981

**TABLE 2-10  
EVENTS RELATED TO 2022  
COST ELEMENT BREAKDOWN OF COSTS  
(THOUSAND OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$1,069
2	Labor	245
3	Materials	(147)
4	Other	(186)
5	Total	\$981

**e. 2023 Events**

During 2023, PG&E continued to restore damaged distribution infrastructure in response to customer requests for several 2023 CEMA events (listed in Table 2-11 below) addressed in the 2023 CEMA cost recovery application.

In A.23-12-001, PG&E requested cost recovery for 2023 CEMA costs through June, 2023. PG&E incurred additional costs between July 1, 2023 and December 31, 2023 for various additional restoration activities for these same events, totaling \$40.5 million in expense and \$24.2 million in capital. These activities included installing 24 poles, and 79 transformers.

In the prior filing 2023, Tulare County Flood costs were included in the 2023 February – March Storms. The separation of these costs in this chapter was done to further illustrate the impact of the flood and the

1 impact of this event as an ongoing events. Tulare flooding did not  
 2 subside until June, 2024.<sup>4</sup>

3 Table 2-11 summarizes the costs incurred for these events,  
 4 Table 2-12 provides an additional breakdown of the total costs by  
 5 contract, labor, materials, and other.

**TABLE 2-11  
 2023 CEMA-RELATED EVENTS  
 BREAKDOWN OF COSTS BY EVENT  
 (THOUSANDS OF DOLLARS)**

Line No.	Event Name	Expense MWC IF	Capital MWC 95	CEMA-Eligible Spending
1	2022 December – January Storms (2022-2023)	\$7,353	\$6,094	\$13,447
2	2023 February – March Storms	33,223	16,505	49,728
3	2023 Tulare County Flood	(59)	1,635	1,576
4	Total 2023-Related Events	\$40,516	\$24,234	\$64,750

**TABLE 2-12  
 EVENTS RELATED TO 2023  
 COST ELEMENT BREAKDOWN OF COSTS  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$53,148
2	Labor	5,901
3	Materials	1,352
4	Other	4,350
5	Total	\$64,750

6 **2. 2023 CEMA Events**

7 **a. 2017 Nuns Fire**

8 The Nuns Fire was one of many fires that occurred during the  
 9 October 2017 Northern California wildfires. It began on October, 2017,  
 10 and merged with the Norrbom, Adobe, Partick, Pressley and Oakmont

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4 NASA Moderate Resolution Imaging Spectroradiometer (MODIS) available at:  
 <[https://modis.gsfc.nasa.gov/gallery/individual.php?db\\_date=2024-06-07](https://modis.gsfc.nasa.gov/gallery/individual.php?db_date=2024-06-07)> (accessed  
 Nov. 14, 2024).

1 Fires, impacting Napa and Sonoma counties. This fire burned  
2 approximately 56.556 acres and was contained on October 30, 2017.

3 The net amount requested in this proceeding is the incremental  
4 costs and associated revenue requirements less adjustments. As a  
5 result of these various adjustments, PG&E is requesting approximately  
6 \$0.4 million – \$0.2 million of expenses and \$0.2 million of capital.

**TABLE 2-13**  
**EVENTS RELATED TO 2017 NUNS FIRE**  
**COST ELEMENT BREAKDOWN OF COSTS FOR EXPENSES**  
**(THOUSANDS OF DOLLARS)**

<u>Line No.</u>	<u>Cost Category</u>	<u>CEMA-Eligible Spending</u>
1	Contract	\$138
2	Labor	52
3	Materials	–
4	Other	(2)
5	Total	\$188

**TABLE 2-14**  
**EVENTS RELATED TO 2017 NUNS FIRE**  
**COST ELEMENT BREAKDOWN OF COSTS FOR CAPITAL**  
**(THOUSANDS OF DOLLARS)**

<u>Line No.</u>	<u>Cost Category</u>	<u>CEMA-Eligible Spending</u>
1	Contract	\$398
2	Labor	96
3	Materials	75
4	Other	(343)
5	Total	\$227

7 **1) Damaged Facilities**

8 The Nuns Fire destroyed or damaged the following number of  
9 facilities: 187 poles, 5 crossarms, 48 transformers, and 228 spans  
10 of distribution conductor.

11 **2) Restoration Activities**

12 The damaged items referenced above were repaired or  
13 replaced to restore power to customers.

1 **b. 2023 Tropical Storm Hilary**

2 Hurricane Hilary reached Category 4 intensity well offshore the  
3 coast of southwestern Mexico in mid-to-late August, 2023. Hilary  
4 weakened as it approached land and became a tropical storm before it  
5 made landfall over the Baja California peninsula. The storm was  
6 projected to move into southern California as a tropical storm. However,  
7 post analysis shows that Hilary lost tropical characteristics shortly after  
8 landfall as it interacted with an upper-level weather system. The  
9 remnants of Hilary (a post-tropical low) entered southern California with  
10 significant rainfall and flooding. Over the southern portions of PG&E's  
11 service territory, weather impacts from the storm were forecast to be  
12 lower compared to southern California. Abundant moisture drawn from  
13 the south resulted in moderate to heavy rain and thunderstorms in  
14 PG&E's Kern and Fresno Divisions from August 19-21. Between the  
15 Fresno and Kern Divisions, approximately 349 lightning strikes occurred.  
16 Over the three days, approximately an inch of rainfall occurred over the  
17 southern mountains of the territory while anywhere from a quarter of an  
18 inch to 0.75 inches of rain fell across the southern portions of the  
19 San Joaquin Valley. Across the southern Sierra foothills and mountains  
20 of the PG&E territory, approximately 1 to 3 inches of rain fall over the  
21 three days.

22 PG&E incurred \$2.9 million in responding to Tropical Storm Hilary –  
23 \$1 million of expenses and \$1.9 million of capital.

**TABLE 2-15**  
**EVENTS RELATED TO 2023 TROPICAL STORM HILARY**  
**COST ELEMENT BREAKDOWN OF COSTS FOR EXPENSES**  
**(THOUSANDS OF DOLLARS)**

<u>Line No.</u>	<u>Cost Category</u>	<u>CEMA-Eligible Spending</u>
1	Contract	\$493
2	Labor	496
3	Materials	1
4	Other	9
5	Total	<u>\$999</u>

**TABLE 2-16**  
**EVENTS RELATED TO 2023 TROPICAL STORM HILARY**  
**COST ELEMENT BREAKDOWN OF COSTS FOR CAPITAL**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$742
2	Labor	568
3	Materials	490
4	Other	82
5	Total	\$1,881

1                   **1) Damaged Facilities**

2                   The storm destroyed or damaged the following number of  
3                   facilities: 27 poles, 20 crossarms, 33 transformers, and 49 spans of  
4                   distribution conductor.

5                   **2) Restoration Activities**

6                   The damaged items referenced above were repaired or  
7                   replaced to restore power to customers.

8                   **D. Conclusion**

9                   As discussed in this chapter, PG&E's costs incurred responding to these  
10                  events were reasonable and therefore should be approved in their entirety.

**CHAPTER 2**  
**ATTACHMENT A**  
**ELECTRIC EMERGENCY RESPONSE ACTIVITIES**

CHAPTER 2  
ATTACHMENT A  
ELECTRIC EMERGENCY RESPONSE ACTIVITIES

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## CHAPTER 2 ATTACHMENT A ELECTRIC EMERGENCY RESPONSE ACTIVITIES

4 **A. Introduction**

5 This attachment provides an overview of Pacific Gas and Electric  
6 Company's (PG&E or the Company) electric emergency response process.<sup>1</sup>

7 PG&E's response to electric emergencies is designed to comply with the  
8 regulatory expectations contained in General Order (GO) 166, "Standards for  
9 Operation, Reliability, and Safety During Emergencies and Disasters." The  
10 purpose of these standards is to ensure that jurisdictional electric utilities are  
11 prepared for emergencies and disasters in order to minimize damage and  
12 inconvenience to the public which may occur as a result of electric system  
13 failures, major outages, or hazards posed by damage to electric distribution  
14 facilities. These standards will facilitate the California Public Utilities  
15 Commission's (CPUC or Commission) investigations into the reasonableness of  
16 the utility's response to emergencies and major outages. Such investigations  
17 will be conducted following every major outage, pursuant to and consistent with  
18 Public Utilities Code Section 364(c) and Commission policy. GO 166 standards  
19 include:

- 20 • Standard 1 – Prepare an emergency response plan and update the plan  
21 annually;
- 22 • Standard 2 – Enter into mutual assistance agreements with other utilities;
- 23 • Standard 3 – Conduct annual emergency training and exercises using the  
24 utilities emergency response plan;
- 25 • Standard 4 – Develop a strategy for informing the public and relevant  
26 agencies of a major outage;
- 27 • Standard 5 – Coordinate internal activities during a major outage in a  
28 timely manner;
- 29 • Standard 6 – Notify relevant individuals and agencies of an emergency or  
30 major outage in a timely manner;

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<sup>1</sup> Similar information was included in PG&E's 2016 Catastrophic Event Memorandum Account (CEMA) filing (A.16-10-019) and is provided again here for reference.

- 1 • Standard 7 – Evaluate the need for mutual assistance during a
- 2 major outage;
- 3 • Standard 8 – Inform the public and relevant public safety agencies of the
- 4 estimated time for restoring power during a major outage;
- 5 • Standard 9 – Train additional personnel to assist with emergency activities;
- 6 • Standard 10 – Coordinate emergency plans with state and local public
- 7 safety agencies;
- 8 • Standard 11 – File an annual report describing compliance with these
- 9 standards;
- 10 • Standard 12 – Be subject to a restoration performance benchmark for
- 11 major outages; and
- 12 • Standard 13 – Be subject to a call center performance benchmark for
- 13 major outages.

14 In compliance with GO 166 Standard 1, PG&E has created the Company  
15 Emergency Response Plan (CERP). The purpose of CERP is to assist PG&E  
16 personnel in implementing a safe, efficient, and coordinated response to an  
17 emergency incident affecting gas or electric generation, distribution, storage  
18 and/or transmission systems within the PG&E service territory or the people who  
19 work in these systems.

20 The CERP provides a number of functions including:

- 21 • Providing a broad outline of PG&E's organizational structure;
- 22 • Describing actions undertaken in response to emergency situations;
- 23 • Presenting a response structure that clearly defined roles and
- 24 responsibilities; and
- 25 • Identifying coordination efforts with outside organizations (e.g., government,
- 26 media, other gas and electric utilities, essential community services,
- 27 vendors, public agencies, first responders and contractors).

28 The Electric Annex, one of the many Functional Areas (FA) and  
29 hazard-specific annexes within the CERP provides an outline of PG&E's electric  
30 Emergency Management Organizational (EMO) structure, roles, and  
31 responsibilities, and describes the activities undertaken in response to electric  
32 emergency outage situations.

33 The Electric Annex is a key element to ensure the Company is prepared for  
34 emergencies in order to minimize damage and inconvenience to the public,

1 which may occur as a result of electric system failures, major outages, or  
2 hazards posed by damage to electric facilities.

3 The Electric Annex's purpose is to serve as:

- 4 • The recovery and response plan to govern electric operations during  
5 emergency events;
- 6 • A guide to develop an overall strategy for managing a response to a  
7 specific disaster;
- 8 • A tool to educate and train the Electric EMO and key stakeholders on how to  
9 execute the plan;
- 10 • The basis for developing annual drills and exercises to test the  
11 organization's ability to execute emergency response procedures; and
- 12 • The repository for capturing how continuous improvement efforts impact the  
13 Electric EMO emergency operations efforts.

14 The processes and procedures contained in both the CERP and Electric  
15 Annex drive the response strategies and tactics used by PG&E to safely and  
16 efficiently restore service during emergency situations, such as a CEMA event.

17 As of January 2024, PG&E's electric system consists of approximately  
18 108,000 primary circuit miles of overhead distribution lines, approximately  
19 27,369 primary circuit miles of underground lines, and approximately  
20 898,500 distribution transformers. The overhead lines, supported by  
21 approximately 2.3 million poles, are particularly susceptible to damage from  
22 catastrophic events like storms and fires. PG&E's Distribution System  
23 Operations (DSO) monitors the distribution grid to identify outages and directs  
24 the scheduling and dispatch of field personnel to address identified abnormal  
25 conditions. PG&E typically identifies outages through alarms from field devices  
26 such as circuit breakers or reclosers, SmartMeter™ data, notifications from  
27 police and fire departments, preventive maintenance patrols and inspections,  
28 and/or by telephone calls from customers who are experiencing an outage.  
29 Once outages have been identified, personnel are directed to address the  
30 issues.

1 Part of PG&E's proactive approach to anticipate storm-caused outages is  
2 the use of the DSO Storm Outage Prediction Project (SOPP) model. This model  
3 evaluates potential impacts to the electric system from forecast adverse  
4 weather, translates this into expected outage activity, and estimates the  
5 resources required to respond effectively. The model has evolved into a key  
6 component of the PG&E Electric Emergency Recovery Program (ERP). Using  
7 the detailed information that the DSO SOPP model provides, PG&E can  
8 preschedule resources several days in advance of an anticipated major adverse  
9 weather event. DSO SOPP model improvements have enabled PG&E to  
10 become more effective in preparing for emergency outages in support of public  
11 and system safety and work efficiency, for major events, and for smaller and  
12 more frequent day-to-day weather challenges.

13 PG&E follows a defined process to ensure appropriate objectives are  
14 addressed in the following priority:

- 15 1) Make Safe – Field personnel act to address hazardous conditions to support  
16 public and employee safety;
- 17 2) Assess – Field personnel assess the outage location to identify the outage  
18 cause (if possible), determine the necessary resources to address the  
19 situation (material, equipment, and personnel) and estimate the time  
20 necessary to make repairs;
- 21 3) Communicate – Field personnel and system operators (located in PG&E's  
22 distribution control centers) work together using various technologies to  
23 provide customers and public agencies with outage information, such as the  
24 cause of an outage and Estimated Time of Restoration (ETOR); and
- 25 4) Restore – After making the conditions safe, assessing the situation, and  
26 beginning the communication process, field personnel and system operators  
27 work together to restore service. This occurs through a combination of  
28 reconfiguring the distribution grid and repairing damaged facilities,  
29 depending on the nature of the event.

1 PG&E's CERP provides the framework for PG&E's response to gas and  
2 electric emergency situations. Emergency situations range from routine outages  
3 (e.g., dig-ins to electric facilities) to major natural disasters (e.g., earthquakes  
4 and major storms). Local control and management may be sufficient to respond  
5 to routine outages. Natural disasters, however, may require a larger coordinated  
6 response of resources.

7 **B. Incident Levels**

8 PG&E has five incident levels, which are described below. PG&E's incident  
9 levels function as a decision-support tool that helps determine the actions PG&E  
10 may need to employ. Level 1 emergencies are classified as routine. Level 2  
11 emergencies may be classified as routine if the local Operational Emergency  
12 Center (OEC) is not activated or is activated for communications only. OEC  
13 communications-only activations are used for pre-staging of resources, resource  
14 support for other affected OECs, significant media impacts, large non-incident  
15 major events (e.g., conventions or major sporting events), or outages requiring  
16 significant environmental impact. These activities are all considered  
17 Routine Emergency.

18 Major Emergencies are typically Level 2 through 5 emergencies. A Level 2  
19 emergency would be considered major if an OEC is activated. OECs are  
20 positioned within each region and are activated separately in individual division  
21 locations. OECs can be activated when a division exceeds the total number of  
22 outages (transformer level and above outages) noted in Table 2A-1 below and  
23 field resources (i.e., Troublemens and crews) to sufficiently support outage  
24 activity have been exhausted. The outage numbers vary by division due to  
25 differences in geographical size, electric infrastructure design (e.g., overhead  
26 versus underground, urban versus rural), outage history, and resource  
27 availability. Occasionally, OECs will activate based on anticipated outage  
28 activity determined by the DSO SOPP model to support public safety and  
29 outage restoration.

**TABLE 2A-1  
OEC ACTIVATION CRITERIA BY DIVISION**

Line No.	Division	Number of Transformer Level and Above Outages Required for OEC Activation
1	Central Coast	9
2	De Anza	5
3	Diablo	5
4	East Bay	5
5	Fresno	8
6	Kern	5
7	Los Padres	6
8	Mission	5
9	North Bay	5
10	Humboldt	7
11	Sonoma	5
12	North Valley	8
13	Peninsula	5
14	Sacramento	6
15	San Francisco	5
16	San Jose	5
17	Sierra	9
18	Stockton	6
19	Yosemite	8

1        **1. PG&E Incident Level Descriptions:**

- 2            • Level 1 – Routine: A Level 1 emergency is typically at the local level,  
3            involving a limited number of customers with an anticipated restoration  
4            response time within 24 hours. In a Level 1 emergency, PG&E can  
5            respond sufficiently using its standard operating mode and local  
6            resources. The local operating departments coordinate resource  
7            deployment in a Level 1 emergency. This level does not require the  
8            activation of an emergency center;
- 9            • Level 2 – Elevated: Level 2 emergencies are defined as a pending  
10           potential incident or a local emergency that may require more than  
11           routine operations response. Resources are mainly local, but there is a  
12           possibility that resources may need to move within the region. For  
13           Level 2 emergencies, an OEC may be activated for communications  
14           only or fully activated to provide oversight and support at a divisional  
15           level;
- 16           • Level 3 – Serious: Level 3 emergencies are serious incidents involving  
17           large numbers of customers. Resources mainly move within the region,

1 but may need to move between regions. In Level 3 emergencies, OECs  
2 are activated to direct and coordinate the personnel necessary to  
3 assess damages, secure hazardous situations, restore service, and  
4 communicate status information internally and externally. Regional  
5 Emergency Center (REC) and Emergency Operations Center (EOC)  
6 activation is possible. The REC provides oversight and support to the  
7 OEC(s) at a region level. As an event escalates, the REC becomes the  
8 point of contact for information and managing escalated OEC issues;

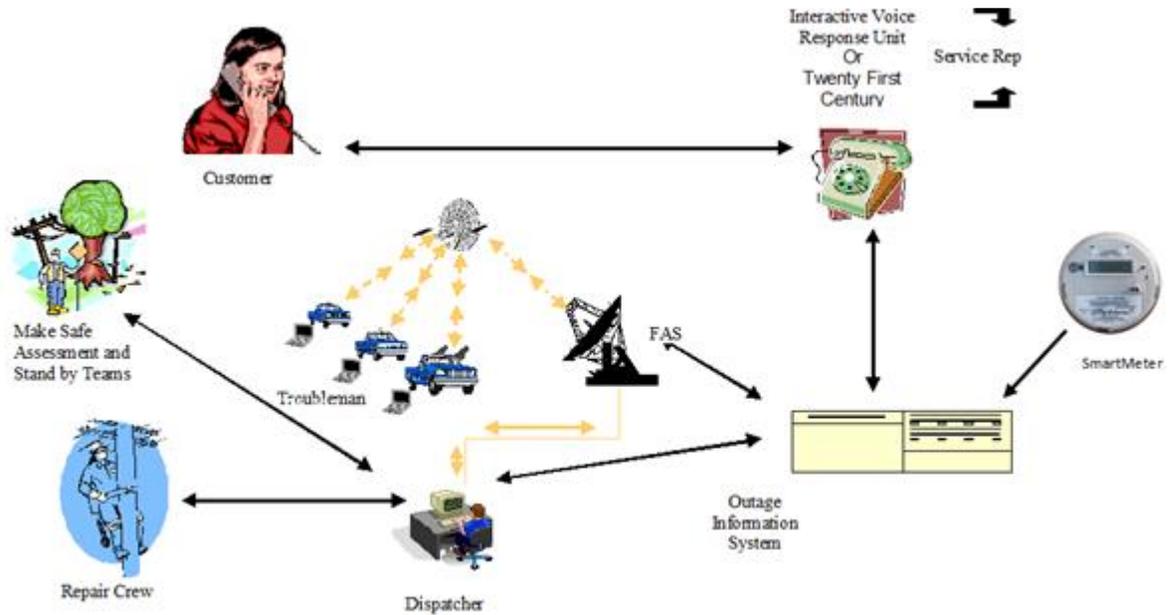
- 9 • Level 4 – Severe: Level 4 is an escalating incident with companywide  
10 impact or extended multiple emergency incidents that impact a large  
11 number of customers. Resources move between regions, general  
12 contractors are utilized, and mutual aid may be needed. During a  
13 Level 4 emergency, the OEC, REC, and EOC are activated.  
14 Additionally, the Emergency Preparedness and Response (EP&R) team  
15 assumes incident command; and
- 16 • Level 5 – Catastrophic: Level 5 is a catastrophic event that includes  
17 multiple emergency incidents, impacts a large number of customers, has  
18 a significant cost, and significant infrastructure risk/damage. This level  
19 of emergency affects the entire Company and the ability to conduct  
20 business operations. The full mobilization of Company resources is  
21 needed to respond, and mutual aid resources are needed. During a  
22 Level 5 event, all emergency centers are activated, and the EP&R team  
23 assumes incident command.

### 24 **C. Outage Communication**

25 PG&E relies on a series of interconnected systems, well-defined work  
26 processes, and well-trained personnel to provide outage information to  
27 customers. PG&E's Outage Information System (OIS) is the key "operational"  
28 system that links field information (e.g., outage locations, causes, resource  
29 assignments, and estimates of restoration) to PG&E's Customer Information  
30 System, which is used in the call centers to relay this information to customers.  
31 This system addresses outages affecting all customers including single  
32 customer outages.

1 PG&E uses the OIS to assist in deploying resources to address outages and  
2 to provide outage information to customers. Figure 2A-1 depicts the outage  
3 communication system.

**FIGURE 2A-1  
OUTAGE COMMUNICATION SYSTEM**



4 The OIS uses outage information from the field to generate information to  
5 manage resources and communicate outage information. These inputs can take  
6 the form of:

- 7 • Customer telephone calls to report an outage;
- 8 • Outage information from automatic system devices located on PG&E's  
9 facilities;
- 10 • Reports from field personnel during their storm response activities; or
- 11 • Reports from emergency agencies.

1 After entering outage information from these sources into the OIS, system  
2 operators can identify and locate the equipment involved in the outage by using  
3 detailed information on the circuit and the equipment information stored in a  
4 database.<sup>2</sup> Customer calls produce outage locations in the OIS through the  
5 customers' telephone numbers. The OIS is able to associate each customer call  
6 with a specific service transformer, based on the phone number or service  
7 account identifiers provided by the customer. With this data, the OIS can  
8 identify the operating device (e.g., a circuit breaker, based on the pattern of  
9 service transformers receiving trouble calls) that serves the affected area.

10 As information is recorded in the OIS, it becomes accessible to customers  
11 through PG&E's call center resources. These resources include Customer  
12 Service Representatives, as well as PG&E's high-volume Interactive Voice  
13 Response Units. As the outage progresses and more information becomes  
14 available, PG&E can provide customers with increasing amounts of information,  
15 such as an estimated time of arrival for field response personnel  
16 (e.g., Troublemens and construction crews), the outage cause (if known), and  
17 ETOR when available.

#### 18 **D. Emergency Recovery Cost Management**

19 PG&E divisions follow specific procedures for recording expenditures  
20 associated with the response and repair of damage to Company facilities.  
21 During the occurrence of a major event, affected divisions are instructed to  
22 separately track and report the costs incurred for restoring utility service and  
23 repairing damaged facilities associated with that event. The divisions segregate  
24 these costs by creating "specific orders"<sup>3</sup> to capture repair, replacement, and  
25 service restoration costs. These specific orders are created for both capital and  
26 expense and for both overhead and underground restoration work, by county  
27 within each division. The orders are created using a specific naming convention

---

2 It is unnecessary to input information from field devices connected to a distribution automation system, as information from these devices populates the OIS automatically.

3 A "specific order" is a term used in PG&E's SAP accounting system to refer to orders established to record costs related to particular tasks or given scope of work. Once the tasks or projects are complete, the specific orders are closed. These specific orders differ from "standing orders." Standing orders are used to record costs for day-to-day ongoing utility operations and are not closed following completion of specific tasks or projects.

1 to identify the business region, division, county, and event for which the order  
2 is created.

3 The role of the Finance Section Chief within the OEC or the Incident  
4 Management Team is responsible for monitoring costs, developing financial  
5 accounting strategy, and providing charging guidance during the incident. Costs  
6 are closely monitored and reviewed to ensure they are recorded in the correct  
7 Major Work Category (MWC) and aligned with the correct FA. Where an event  
8 affects a number of PG&E facilities across wide geographic regions, multiple  
9 specific orders are used to ensure the proper reporting and control of system  
10 repairs and restoration work. PG&E's Business Finance Department, ERP  
11 Manager, and the affected divisions review the orders to ensure that the costs  
12 charged to the specific orders occurred within the timeframes of the event, are in  
13 accordance with the major event charging guidelines, and were in the counties  
14 covered by the orders.

#### 15 **E. Incrementality**

16 CEMA event costs were explicitly removed from Electric Distribution's  
17 historical spending when the Electric Distribution's 2023 General Rate Case  
18 (GRC) forecast for major emergencies was developed. In the 2023 GRC, PG&E  
19 forecasted and recorded in MWCs IF (Expense)<sup>4</sup> and 95 (Capital)<sup>5</sup> all costs  
20 associated with electric distribution major emergency response that were not  
21 declared disasters (i.e., non-CEMA events).<sup>6</sup> The MWC IF and MWC 95  
22 forecast in the 2023 GRC were typically developed by taking an average of  
23 historical spending. PG&E did not forecast MWC IF or MWC 95 in units.

---

4 Major emergency expense work captured in MWC IF can involve, but is not limited to, splicing conductor, replacing insulators, re-sagging conductor, pre-treating poles or basically any work that involves a repair.

5 Major emergency capital work captured in MWC 95 involves the replacement of a capital plant asset, such as a pole, cross arm, or a piece of line equipment.

6 Beginning in 2014, PG&E began using the Major Emergency Balancing Account (MEBA), as authorized by the CPUC in D.14-08-032, p. 733, Ordering Paragraph (OP) 9. With the introduction of the MEBA, all non-CEMA MWC 95 and MWC IF major emergency activities are recorded to the MEBA. In a given year where PG&E incurs a lesser amount of costs relative to the authorized revenues for responding to major emergencies for that year, the difference is returned to customers the following year. If PG&E incurs a greater amount of costs responding to major emergencies in a given year relative to the authorized revenues for responding to major emergencies during that year, the difference is recovered from customers the following year.

1 PG&E operating departments plan their labor by month, and specifically plan  
2 a set amount of units of work for normal business operations to respond to  
3 day-to-day emergencies and for restoration work associated with a major  
4 emergency.<sup>7</sup> A unit of work is a Priority-A Electric Corrective (EC) tag.<sup>8</sup> As with  
5 costs, units of work are forecasted by both capital and expense. All emergency  
6 repairs performed on the distribution system are also captured in the form of  
7 units. Operating departments' planned units of work for responding to  
8 emergencies are based on historical recorded expenditures.

9 Responding to emergency situations is one of PG&E's highest priorities.  
10 When a major event impacts the service territory, scheduled work is put on hold,  
11 and resources are re-deployed to the higher priority work of restoring customers.  
12 Thus, in an emergency, planned units of work for normal day-to-day business  
13 operations may be displaced by the units of work for responding to the  
14 emergency.

15 The planned work displaced by emergency work must still be completed.  
16 This work is re-prioritized and re-scheduled, potentially causing other scheduled  
17 work to also be moved farther out in time. It can take from a few months to a  
18 year or more, depending on the magnitude of the emergency and other factors,  
19 such as the use of overtime, to make up the work in the schedule.

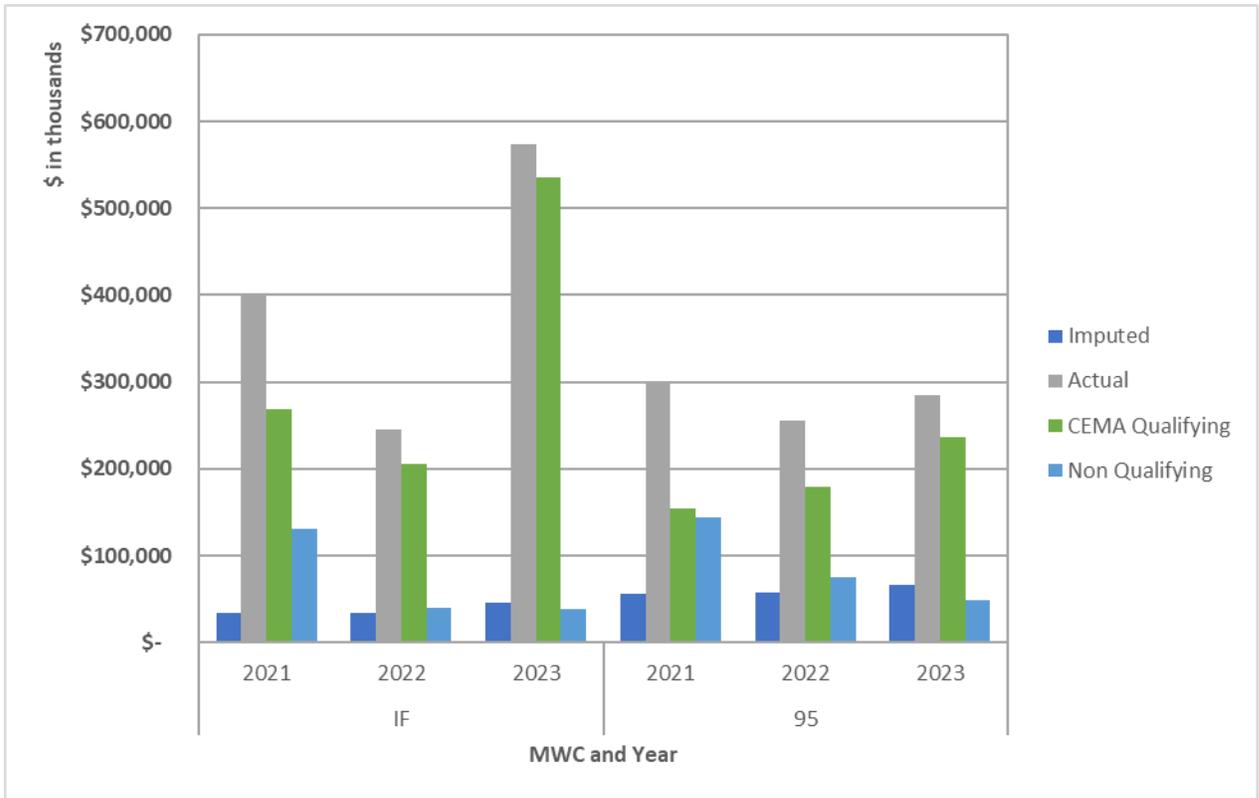
20 PG&E uses a 5-year average to calculate Major Emergency planned hours,  
21 and costs, Major Emergency expense and capital work in 2021 and 2023 were  
22 significantly over planned hours due to the higher-than-forecasted storm and fire  
23 activity. Figure 2A-2 shows the Major Emergency planned versus actual costs,  
24 as well as the costs of CEMA qualifying events within the date range of  
25 2021-2023.

---

7 A "major emergency" is any event that results in PG&E activating one of the Company's OECs.

8 A unit of work in the ERP is a Priority A EC Notification. A unit of work is synonymous with a work location as defined by the Electric Distribution Preventative Maintenance Manual. Expense work locations are specific to the item repaired. For example, where multiple spans of wire are down, each span is considered a work location and an EC notification is generated for each. Capital work locations are specific to the pole (all assets inclusive) and a span of wire on either side. For example, in the case of one pole, the two contiguous spans of wire down and requiring replacement; the downed pole/span combination is considered one work location. Therefore, only one EC notification is required for the pole and the wire.

**FIGURE 2A-2  
ELECTRIC DISTRIBUTION PLANNED VERSUS ACTUAL COSTS  
(MWC IF AND MWC 95) JANUARY 2021 THROUGH DECEMBER 2023  
(THOUSANDS OF DOLLARS)**

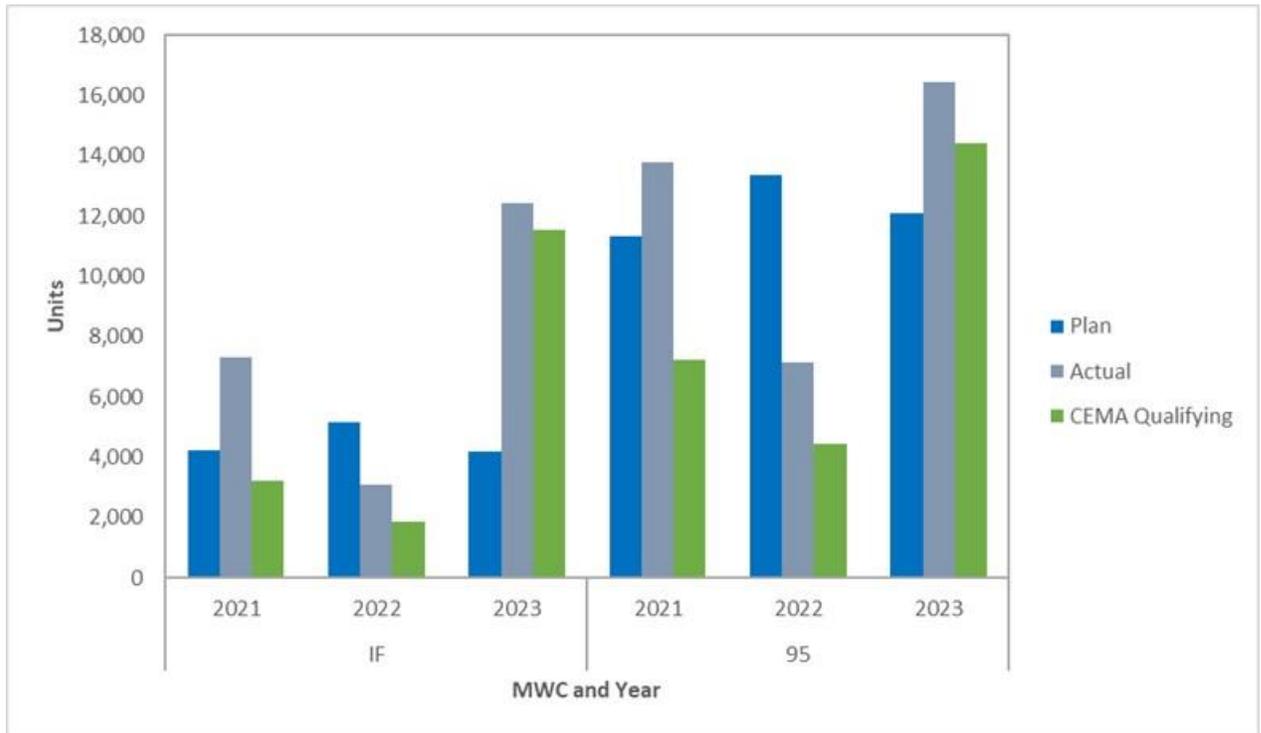


1            Figure 2A-2 shows that actual expenditures exceeded the imputed amounts  
 2            in expense and capital between 2021 through 2023. This reflects the significant  
 3            impact the climate had on PG&E’s infrastructure.

4            The actual and CEMA qualifying are significantly over imputed amounts.  
 5            Expenses In 2021 through 2023 CEMA-qualifying events were 67 percent,  
 6            84 percent, and 93 percent of total spend. CEMA Capital qualifying costs were  
 7            52 percent, 71 percent and 83 percent of total spend.

8            Figure 2A-3 shows the planned, actual, and CEMA-qualifying units from  
 9            2021 through 2023.

**FIGURE 2A-3  
ELECTRIC DISTRIBUTION PLANNED VERSUS ACTUAL UNITS  
(MWC IF AND MWC 95) JANUARY 2021 THROUGH DECEMBER 2023**



1           Figure 2A-3 shows the magnitude and the severity of the 2023 storms.

2           Expense units between 2021 through 2023 CEMA-qualifying events were  
3           44 percent, 60 percent, and 92 percent of actual units, respectively. Compared  
4           to plan 2021 through 2023, were 76 percent, 36 percent, and 277 percent,  
5           respectively.

6           Capital units between 2021 through 2023 CEMA-qualifying events were  
7           52 percent, 62 percent, and 88 percent of actual units, respectively. Compared  
8           to plan 2021 through 2023, were 64 percent, 33 percent, and 119 percent,  
9           respectively.

10          Incrementality is discussed in greater detail in Chapter 10 of this application.

1 **F. Cost Reasonableness**

2 The costs PG&E incurred in responding to the catastrophic events described  
3 above are reasonable as described in this section. First, the activities PG&E  
4 performed are in accordance with GO 166 requirements, as described in  
5 Section F1 below. Second, PG&E tracks a number of performance metrics for  
6 each event which illustrate the reasonableness of the response. These metrics  
7 are reviewed after the events to drive continuous improvement and efficiency in  
8 PG&E's emergency response.

9 **1. PG&E's Response Was Driven by the Requirements of GO 166<sup>9</sup>**

10 There are many factors that will drive the strategy and tactics of PG&E's  
11 response to a catastrophic event including; incident complexity, volume of  
12 damage, and duration of customer impact. All of these then drive the  
13 resources required to respond and restore customers as quickly as possible.  
14 The expectation of the CPUC, as provided in the Standards within GO 166,  
15 is to safely and quickly restore service to customers. PG&E's CERP<sup>10</sup> and  
16 Annexes, as required by Standard 1, contain processes, procedures, and  
17 guidelines to facilitate compliance with the 10 sections of the standard.

18 As discussed in Section D of this testimony with respect to each of the  
19 individual incidents, PG&E's response actions were consistent with those  
20 requirements and the costs it incurred were in support of achieving those  
21 objectives. For example, as contemplated by Standard 1, PG&E has  
22 coordinated internally in the gathering and dissemination of information,  
23 established response priorities, implemented proactive deployment and  
24 allocation of resources from across the service territory and coordinated  
25 activities to restore service to impacted customers.

---

9 Further information on GO 166 can be found on  
[https://ia.cpuc.ca.gov/gos/go166/GO166\\_startup\\_page.html](https://ia.cpuc.ca.gov/gos/go166/GO166_startup_page.html) (accessed Nov. 14, 2024).

10 In compliance with GO 166 Standard 1, PG&E has created the CERP. The purpose of CERP is to assist PG&E personnel with safe, efficient, and coordinated response to an emergency incident affecting gas or electric generation, distribution, storage and/or transmission systems within PG&E's service territory or the people who work in these systems.

1 PG&E has further demonstrated the focus on public and employee  
2 safety through: (1) the use of 911 Standby resources to relieve public safety  
3 agencies within 60 minutes and the use of base camps to get crews and  
4 material closer to the work, limiting driving risk exposure; (2) the execution  
5 of dynamic damage assessment strategies to assess infrastructure damage  
6 and mobilize additional resources in the form of Rapid Assessment Teams  
7 to expedite assessment and restoration of service; (3) development and  
8 communication of restoration priorities during each incident both internally  
9 and externally during wildland fire situations; and (4) using mutual  
10 assistance to reduce outage duration.

11 **2. Performance Metrics Demonstrate the Effectiveness of PG&E's**  
12 **Response**

13 PG&E's top priorities when responding to catastrophic events is the  
14 safety of the public, first responders, and employees, and the timely  
15 restoration of service to customers. In a catastrophic emergency response  
16 setting, costs are affected by many different factors depending on the nature  
17 of the event and response. Therefore, it is not appropriate to judge the  
18 reasonableness of costs incurred on a per unit basis as may be done in  
19 other circumstances. Rather, it is appropriate to look to the activities  
20 undertaken given the circumstances and the overall level of success of the  
21 response.

22 Response to a catastrophic event differs in many ways compared to  
23 work performed in a "normal" setting. PG&E may incur additional costs  
24 during these types of events, such as warehouse and telecom services,  
25 base camp setup and operational costs, standby labor, overheads, and  
26 others. Total costs for catastrophic events vary widely due to severity,  
27 resource requirements, type of event and many other factors. As described  
28 above, PG&E's SOPP model outputs add visibility to the potential  
29 complexity of the incident, area of greatest impact and resource and  
30 material needs. This information is used to assist PG&E in executing an  
31 efficient response. PG&E's three warehouse facilities contain stores of  
32 material and their strategic placement in the service territory support rapid  
33 mobilization of materials to service centers and lay down yards during  
34 response. During a catastrophic event, PG&E uses the standards set forth

1 in GO 166 and the CERP in order to appropriately and reasonably respond.  
2 For example, PG&E's Resource teams monitor assessment and restoration  
3 rates to help identify how many and where crews are needed and if contract  
4 or Mutual Assistance resources will need to be requested. Operational calls  
5 are held with OEC and REC Commanders to validate the resource plan and  
6 identify unique needs for specialize equipment to mitigate access or  
7 geographic challenges and improve restoration performance. The  
8 development of a common operating picture confirms the number of  
9 resources required and ensures we are not moving resources unnecessarily  
10 or bringing on additional external resources that are not required for  
11 restoration.

12 In accordance with the 2016 CEMA settlement—to help better  
13 understand PG&E's emergency response performance across CEMA  
14 events—Tables 2A-2 and 2A-3 below provide a comparative perspective of  
15 the metrics used to measure response performance for the winter storms  
16 and wildland fires included in this application. PG&E reviews its  
17 performance with the IMT and responders within the FA after the fact in an  
18 effort to continually work on improving the effectiveness and efficiency of  
19 response efforts.

20 Among all the performance metrics provided in Tables 2A-2 and 2A-3,  
21 PG&E highlights the following five metrics as key measures of performance,  
22 which illustrates the complexity during response and compliance with the  
23 expectations outlined in GO 166 Standard 1.

- 24 1) Customer Average Interruption Duration Index (CAIDI) – Measures  
25 average outage duration per customer and is identified in Standard 12 of  
26 GO 166 to be a benchmark for the reasonableness of PG&E's response;
- 27 2) Productivity – Measured in labor hours per unit and quantifies the  
28 efficiency of the crews and resources directly supporting response in the  
29 field;
- 30 3) Straight-Time, Overtime and Double-Time – Measured in hours worked  
31 in each category. This is a direct component of productivity and  
32 measures performance to the established 16/8-hour work schedule  
33 utilized to help manage employee fatigue;

- 1 4) 911 Standby Response – Measured as a percentage of calls responded  
 2 to within 60 minutes made by public safety agencies requesting  
 3 response by PG&E; and  
 4 5) Customers Restored Within 24 Hours – Measured as a percentage of  
 5 the total customers restored within 24 hours of the first call reporting the  
 6 outage. This quantifies the efficiency of the response and directly  
 7 impacts CAIDI.

**TABLE 2A-2  
 EMERGENCY RESPONSE  
 EVENT LEVEL PERFORMANCE METRICS FOR FIRE EVENTS  
 (HISTORICAL DATA ONLY)**

Event		2022 Oak Fire
<b>Spend</b>	Cap \$	\$ 7,347,398
	Exp \$	\$ 11,325,911
	<b>Total</b>	<b>\$ 18,673,309</b>
	Labor	\$ 4,535,748
	Materials	\$ 2,075,657
	Contracts	\$ 10,631,755
	Other	\$ 1,430,149
	<b>Total</b>	<b>\$ 18,673,309</b>
<b>Productivity</b>	Cap Hrs	27,603
	Exp Hrs	16,243
	<b>Total Hrs</b>	<b>43,846</b>
	ST HRS	18,374
	OT HRS	4,940
	DT HRS	20,533
	Cap HRS/Unit	89.91
	Exp Hrs/Unit	2,320.43
<b>Total Hrs / Unit</b>	<b>139.64</b>	
<b>Units</b>	Cap Units	307
	Exp Units	7
	<b>Total Units</b>	<b>314</b>
	Poles	189
	Conductor	92
	Transformers	2
	Cross Arms	5
	Other	26
<b>Outage and Customer Impact</b>	Duration	19 Days
	CAIDI	235
	3rd Party	2
	Animal	1
	Environmental /External	23
	Equipment Failure/ Involved	8
	Unknown Cause	6
	Vegetation	-
	<b>Total Outages</b>	<b>105</b>
	Customers Impacted	21,058
	% Cust Restored within 12Hrs	67.01%
% Cust Restored within 24Hrs	77.37%	
<b>911 Standby</b>	# of 911 Standby Requests	N/A
	% 911 Requests responded to within 60 mins	N/A

1           Tables 2A-2 above shows spending, productivity, and performance  
2 metrics of a fire event included in prior year's CEMA filing. (The data in the  
3 above table was provided only as reference, to illustrate the impact of a fire  
4 event. There were no new fire events that occurred in 2023 to include in this  
5 current application for comparison). While fire events last longer and require  
6 extensive response to protect our facilities from fire damage, they have  
7 fewer outages and safety incidents such as wire down events. In addition,  
8 PG&E's response can be significantly longer due to the dynamic changing  
9 environment associated with an active fire, as well as PG&E's ability to gain  
10 safe access to the area as provided by the fire agency in charge such as  
11 California Department of Forestry and Fire Protection or the United States  
12 Forest Service.

13           Table 2A-3 shows spending, productivity, and performance metrics of  
14 the 2023 storm event included in last year's CEMA filing. The storm from  
15 PG&E's 2022/2023 CEMA filing are including to provide context of the 2023  
16 Feb March Storms (Dec 2023 through June 2023) vs 2023 Tropical Storm  
17 Hillary metric results. PG&E had a very strong safety performance, relieving  
18 911 standby responders within 60 minutes at least 95 percent of the time  
19 during storm events. Doing so promotes public safety, effectively freeing up  
20 first responders to attend to other life safety calls. PG&E's reliability  
21 performance was very strong and in line with CAIDI of a non-storm day.  
22 This shows the effectiveness of PG&E's response to restore customers  
23 quickly, in line with Standard 12 of GO 166.

**TABLE 2A-3  
EMERGENCY RESPONSE  
EVENT LEVEL PERFORMANCE METRICS FOR STORM EVENTS**

		2023 February - March Storms	2023 Tropical Storm Hilary
Event			
<b>Spend</b>	Cap \$	\$ 178,059,784	\$ 1,881,399
	Exp \$	\$ 229,579,415	\$ 998,741
	<b>Total</b>	<b>\$ 407,639,199</b>	<b>\$ 2,880,140</b>
	Labor	\$ 89,007,551	\$ 1,063,768
	Materials	\$ 27,614,018	\$ 490,711
	Contracts	\$ 279,547,576	\$ 1,234,553
	Other	\$ 11,470,053	\$ 91,107
	<b>Total</b>	<b>\$ 407,639,199</b>	<b>\$ 2,880,140</b>
<b>Productivity</b>	Cap Hrs	367,405	4,763
	Exp Hrs	722,647	4,101
	<b>Total Hrs</b>	<b>1,090,052</b>	<b>8,864</b>
	ST HRS	416,246	2,071
	OT HRS	22,778	311
	DT HRS	651,028	6,483
	Cap HRS/Unit	43.39	44.93
	Exp Hrs/Unit	91.36	100.02
	<b>Total Hrs / Unit</b>	<b>66.56</b>	<b>60.30</b>
<b>Units</b>	Cap Units	8,467	106
	Exp Units	7,910	41
	<b>Total Units</b>	<b>16,377</b>	<b>147</b>
	Poles	2,418	27
	Conductor	7,856	49
	Transformers	1,514	33
	Cross Arms	1,689	20
	Other	2,900	18
<b>Outage and Customer Impact</b>	Duration	34 Days	3 Days
	CAIDi	649	210
	3rd Party	329	4
	Animal	138	7
	Environmental /External	385	9
	Equipment Failure/ Involved	3,174	34
	Unknown Cause	2,443	46
	Vegetation	4,237	22
	<b>Total Outages</b>	<b>11,455</b>	<b>141</b>
	Customers Impacted	2,714,317	33,445
	% Cust Restored within 12Hrs	88.28%	96.87%
% Cust Restored within 24Hrs	97.35%	99.44%	
<b>911 Standby</b>	# of 911 Standby Requests	3,082	119
	% 911 Requests responded to within 60 mins	93.28%	94.96%

**PACIFIC GAS AND ELECTRIC COMPANY**

**CHAPTER 3**

**BUTTE COMMUNITY REBUILD**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 3  
BUTTE COMMUNITY REBUILD

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1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2   **CHAPTER 3**  
3                                   **BUTTE COMMUNITY REBUILD**

4       **A. Introduction**

5           This chapter describes Pacific Gas and Electric Company’s (PG&E or the  
6       Company) Butte Community Rebuild Program for fire-damage restoration and  
7       rebuild work, wildfire mitigation, and other work completed in and adjacent to the  
8       Town of Paradise, Butte County. The net amounts requested in this proceeding  
9       are the incremental costs and associated revenue requirements less  
10       adjustments that include: (1) disallowances adopted in Investigation (I.)  
11       19-06-015 (Wildfire OII Disallowance), (2) wildfire mitigation costs approved for  
12       securitization (AB1054 Securitization), (3) insurance proceeds, and (4) other  
13       exclusions. As a result of these various adjustments, PG&E is requesting  
14       approximately \$361.5 million capital and \$2.1 million expense of the \$1.6 billion  
15       incurred to date for the Butte Community Rebuild Program. This chapter is  
16       organized as follows:

- 17       • Section A: Introduction;
- 18       • Section B: Incrementality;
- 19       • Section C: Summary of Request;
- 20       • Section D: Community Rebuild;
- 21       • Section E: Accounting Adjustments; and
- 22       • Section F: Conclusion.

23                   **1. Background**

24           In November 2018, the Camp Fire covered an area of approximately  
25       153,000 acres in the Town of Paradise and surrounding areas in Butte  
26       County, with most of the damage occurring within the first four hours of the  
27       fire. In Paradise alone, the wildfire destroyed approximately 199 miles of  
28       electric distribution lines. On November 12, 2018, the Camp Fire was  
29       declared a major disaster by state and federal authorities<sup>1</sup>.

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1       Notice of the Presidential declaration of a major disaster for the State of California (FEMA-4407-DR), (Nov 12, 2018), available at: <<https://www.fema.gov/disaster-federal-register-notice/4407-dr-ca-initial-notice>> (accessed Nov. 20, 2024).

1 PG&E began emergency response activities immediately following the  
2 wildfire to respond to the needs of the community. These emergency  
3 activities, which were performed over several months, included removing  
4 fire-damaged trees, downed power poles, and other hazardous materials  
5 prior to PG&E's larger, widescale efforts to restore gas and electric service  
6 to the community and customers.<sup>2</sup>

7 Following these initial activities, PG&E initiated the Butte Community  
8 Rebuild Program in 2019 to begin a widescale restoration and rebuilding of  
9 PG&E's distribution electric and gas system infrastructure in and around  
10 Paradise. The Butte Community Rebuild Program includes various discrete  
11 workstreams to restore electric assets damaged by the fire, mitigate wildfire  
12 risk going forward, and complete gas-related activities separate and  
13 unrelated to damage caused by the fire. To this end, the Butte Community  
14 Rebuild Program consists of the following three activities:

- 15 • Restoration Activities: Like-for-like replacement work including:  
16 (1) restoring certain previously -underground electric and gas assets  
17 impacted by the fire; and (2) restoring disconnected electric and gas  
18 service to customers who returned to their homes. PG&E is not seeking  
19 recovery of costs associated with Restoration Activities.
- 20 • Wildfire Mitigation: System Hardening work including:  
21 (1) undergrounding previously overhead electric distribution assets for  
22 wildfire mitigation and wildfire safety purposes<sup>3</sup> in Tier 2/3 High Fire  
23 Threat District (HFTD) areas and other adjacent high fire threat areas;<sup>4</sup>  
24 and (2) overhead hardening of certain electric distribution assets outside  
25 of planned undergrounding areas.

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2 Paradise Continues to Rebuild and Evolve Three Years After the Camp Fire (Nov. 8, 2021), available at: <<https://today.csuchico.edu/paradise-rebuild-and-evolve/>> (accessed Nov. 14, 2024).

3 This includes undergrounding of overhead assets to allow for safer ingress and egress in the event of a wildfire.

4 PG&E's Butte Community Rebuild system hardening work included undergrounding in HFTDs, High Fire Risk Areas (HFRA), and in the Town of Paradise itself. As explained in PG&E's Rebuttal Testimony, portions of the Town are neither HFTD nor HFRA; PG&E has undergrounded in these non-designated portions of the Town because of the history of fires in the area and the ingress/egress constraints created by fallen overhead equipment during the Camp Fire. See PG&E's Rebuttal Testimony, pages 3-32 to 3-37, for more detail.

- Gas Activities: Including replacement of certain portions of gas facilities undamaged by the fire in accordance with State and Federal recommendations and bringing existing infrastructure to modern construction standards. PG&E decided to complete this work on undamaged facilities to leverage the underground trenching already underway to save trenching costs and minimize the impact on customers.

Following the October 2017 Northern California wildfires and the 2018 Camp Fire, PG&E began evaluating replacing overhead powerlines with underground cables as a wildfire mitigation and safety measure in certain Tier 2/3 HFTDs. Given the history of fires in Butte County and areas near Paradise dating back many decades and the safety risks posed by downed powerlines clogging highways and roads, PG&E determined in 2019 that undergrounding previously overhead powerlines in Paradise and the surrounding areas was the appropriate and prudent measure for wildfire mitigation and to support safer ingress and egress routes during future wildfire events in the area. PG&E also determined that for wildfire mitigation purposes it also would harden overhead lines outside of the planned undergrounding footprint. PG&E committed to completing the rebuild in a safe and cost-effective manner and is seeking cost recovery for certain rebuild costs described below, net of various disallowances and adjustments.

## **2. PG&E's Rebuild Strategy**

PG&E has an obligation to serve customers and restore assets following any disaster once service is requested. To meet that obligation and to best address the interests of the community, PG&E chose to underground electric distribution lines following the Camp Fire. The Camp Fire was started by a PG&E transmission line. PG&E acknowledges responsibility for causing this catastrophic fire and, as detailed in PG&E's Wildfire Mitigation Plans (WMP),<sup>5</sup> launched significant wildfire risk mitigation efforts to prevent

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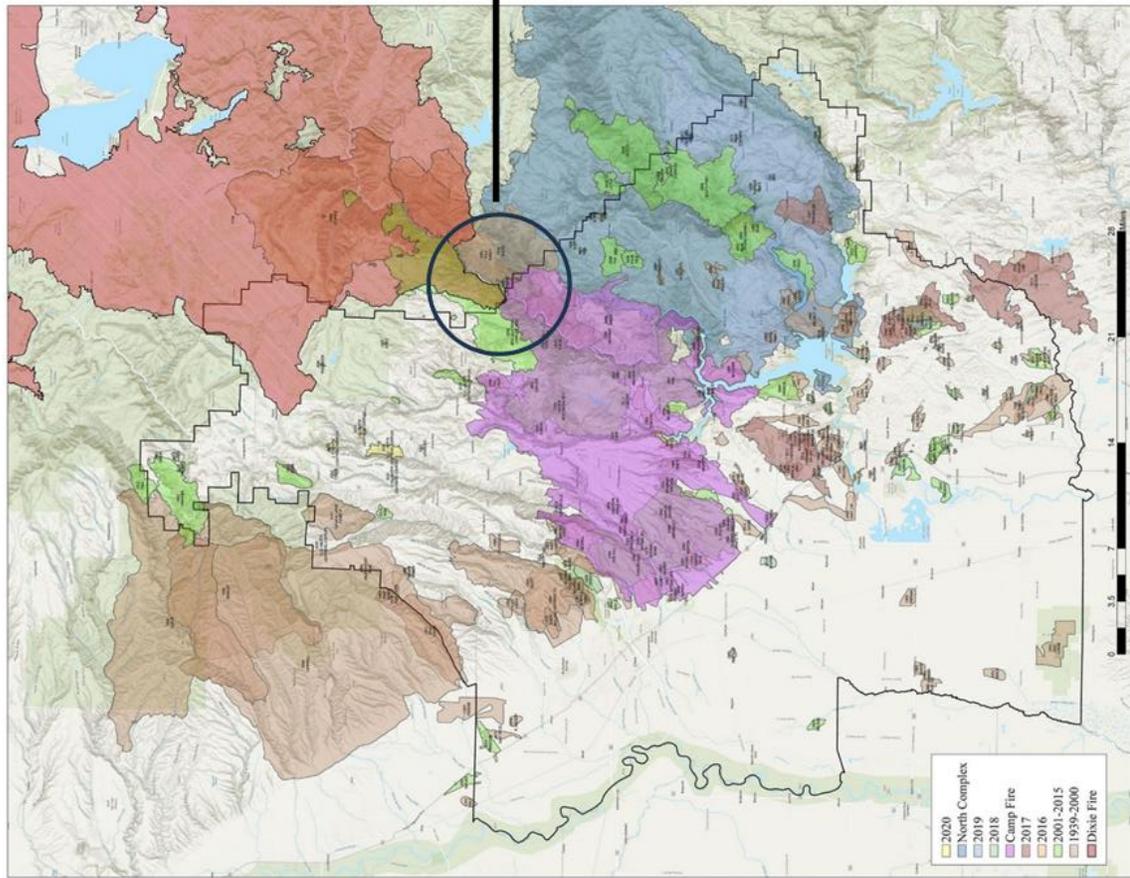
<sup>5</sup> See for example PG&E 2023-2025 Wildfire Mitigation Plan (R6), (July 5, 2024), available at: <<https://www.pge.com/en/outages-and-safety/safety/community-wildfire-safety-program.html#accordion-99016a73ab-item-c788794778>> (accessed Nov. 14, 2024).

1 ignitions in the future. The decision to rebuild both gas and electric assets in  
2 the impacted area was prudent in that it benefits not only the direct  
3 community, but all PG&E customers through the reduction of wildfire risk. In  
4 particular, undergrounding is in the best interest of a community living in an  
5 area that had been repeatedly scarred by wildfire over the past several  
6 decades. Most of the areas impacted by the 2018 Camp Fire were in Tier 2  
7 (Elevated) and Tier 3 (Extreme) HFTDs. Figure 3-1<sup>6</sup> below shows the  
8 multitude of fires that have impacted the area in and around Paradise over  
9 the past 85 years.

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<sup>6</sup> Butte County Wildfire Mitigation Projects (April 2024), available at:  
<[https://www.fema.gov/sites/default/files/documents/fema\\_ehp-hmqp-dr-4407-ca-buttecountywildfiremitigation-dea-20240411.pdf](https://www.fema.gov/sites/default/files/documents/fema_ehp-hmqp-dr-4407-ca-buttecountywildfiremitigation-dea-20240411.pdf)> (accessed Nov. 14, 2024).

**FIGURE 3-1  
BUTTE COUNTY FIRE HISTORY**



**Butte County Fire History**

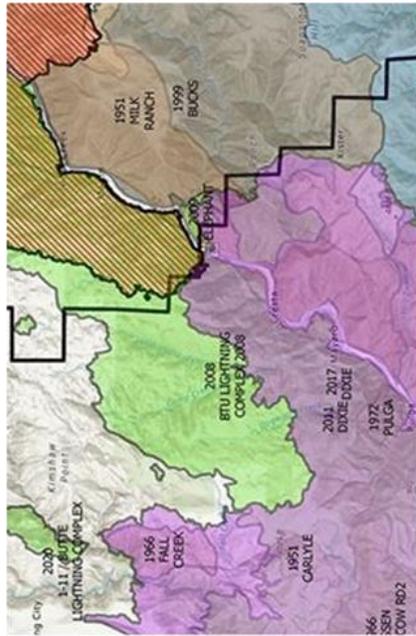


Figure 3-1 shows the Butte County Fire history from 1939 to 2000. The Camp Fire is in the purple area in the center of the map. The Camp Fire started along the Pulga River between the location of the 2009 Elephant Fire and 1972 Pulga Fire, as shown in the focused view of the circled area. The detail section denoted by the circle in Figure 3-1 shows the names and dates of other individual fires that have occurred in the area. For example, the detail section lists 11 different fires in just the circled section of Figure 3-1.

1           Soon after the Camp Fire occurred, PG&E participated in workshops  
2 with the community to hear how PG&E could support them as they began  
3 the rebuilding process. The people living in Paradise wanted PG&E to  
4 construct the safest system possible to protect against wildfires and to  
5 ensure safe egress and ingress so they could feel secure as they rebuilt  
6 their community. In May 2019, following the community workshops, PG&E  
7 announced that it would underground all of its electric distribution assets in  
8 Paradise and neighboring parts of Butte County (referred to as the  
9 underground footprint). PG&E’s decision to harden the electric system  
10 considered the full community impact of the Camp Fire and potential future  
11 fires in areas that had been impacted repeatedly by wildfires.

12           Undergrounding distribution electric lines reduces the risk of wildfire and  
13 improves public safety and reliability. Undergrounding electric distribution  
14 assets reduces ignition risk by approximately 98 percent.<sup>7</sup> Given the history  
15 of fires in this area, PG&E’s decision to underground electric distribution  
16 lines virtually eliminates the ignition risk from utility assets, protects the  
17 community from potential future wildfires and eliminates the need to rebuild  
18 most overhead assets any time a fire occurs in the future.

19           In addition, during the Camp Fire, many wooden poles failed, falling into  
20 streets and severely impacted critical ingress and egress routes. As a result  
21 of undergrounding electric assets, PG&E removed the risk of this  
22 reoccurring and significantly improved public safety. Without poles  
23 supporting overhead electric lines, there is no longer a threat that poles  
24 could fall into the streets and prevent people from leaving an area during a  
25 fire or hinder first responders from having direct access into the area.

26           PG&E’s decision to underground electric assets also improves system  
27 reliability. Underground distribution lines are generally not subject to Public  
28 Safety Power Shutoff (PSPS) events. Because of undergrounding, PG&E  
29 can mostly avoid initiating distribution PSPS events in locations where lines  
30 have been undergrounded.

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<sup>7</sup> See PG&E’s 2023-2025 Base WMP, R6, (July 5, 2024), p. 423, available at:  
<<https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/pge-wmp-r6-07052024.pdf>> (accessed Nov. 14, 2024).

1 PG&E's decision to underground was an efficient use of resources.  
2 Because the electric distribution system had been damaged and needed to  
3 be replaced and PG&E planned to replace the gas pipeline to address  
4 known risks, PG&E employed joint trench construction where both the gas  
5 line and the electric conduit were placed in the same trench. Joint trenching  
6 saved costs for both the gas and electric construction. Additionally,  
7 overhead electric lines can be damaged or destroyed during a fire and then  
8 must be rebuilt. PG&E had already re-built overhead electrical lines after  
9 other fires in the Camp Fire area. Underground distribution lines will not be  
10 damaged by wildfire and thus will not have to be rebuilt.

11 Overall, PG&E conducted its work in a safe and reliable way to serve  
12 the long-term needs of customers and to enable a safe return to a renewed  
13 community.

### 14 **3. Serving the Community**

15 As part of the restoration and rebuild efforts, PG&E's Butte Community  
16 Rebuild Program prioritized, and continues to prioritize, the needs of  
17 Paradise and surrounding communities. PG&E's efforts in Paradise have  
18 been recognized by former Mayor Greg Bolin as he stated, *"They are so  
19 cooperative. They just bend over backwards to do what they can to help  
20 out. They know what happened and they just want to make it right, and I'll  
21 tell you, without them, we would not be coming back."*<sup>8</sup> PG&E provided  
22 fresh water to the Community for a full year following the Camp Fire and  
23 PG&E made grants to the Butte County Sherriff's department supporting  
24 upgrades to the emergency notification system. PG&E donated  
25 used-drones (no longer suitable for utility-scale use) to the community,  
26 supported afterschool programs and a holiday giving campaign. PG&E  
27 partnered extensively with officials to coordinate and schedule work in the  
28 community to minimize conflicts with other construction activities and  
29 support rebuilding efforts. PG&E and local officials coordinated on work  
30 schedules on adjacent roads, near schools, and in commercial areas to  
31 support the rebuilding community. PG&E also prioritized local contractors

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8 [Paradise still recovering from Camp Fire almost 5 years later.](#)

1 for rebuild projects where eligible. None of the costs associated with the  
2 activities stated above are included with PG&E’s request in this application.

3 **B. Incrementality**

4 In this application, PG&E is requesting recovery of Butte Community Rebuild  
5 wildfire mitigation and gas work. Specifically, PG&E requests:

- 6 1) The incremental revenue requirements associated with costs found  
7 reasonable in PG&E’s 2020 General Rate Case (GRC) (see Table 3-3,  
8 Column D below);<sup>9</sup>
- 9 2) The incremental costs and incremental revenue requirements originally  
10 included by PG&E in its 2023 GRC,<sup>10</sup> but removed by the California Public  
11 Utilities Commission (CPUC or Commission) in its 2023 GRC Decision (See  
12 Table 3-3, Column E below);<sup>11</sup> and
- 13 3) Certain 2020-2022 incremental costs and associated revenue requirements  
14 that were not included in PG&E’s 2020 GRC and 2023 GRC and thus have  
15 not been reviewed for reasonableness (See Table 3-3, Column C below).

16 Table 3-4 below shows that PG&E incurred approximately \$493.2 million in  
17 expense costs for restoration and rebuild work. After applying accounting  
18 adjustments, PG&E is requesting approximately \$2.1 million in this application—  
19 less than 1 percent of the incurred amount.

20 Table 3-5 below shows that PG&E incurred approximately \$1,150.2 million  
21 in capital costs for restoration and rebuild work. After applying accounting  
22 adjustments, PG&E is requesting approximately \$361.5 million in this  
23 application—approximately 31 percent of the incurred amount.

24 PG&E discusses these cost categories in further detail below.

25 **1. Revenue Requirements Associated With 2020-2022 Costs Deemed**  
26 **Reasonable In The 2020 GRC**

27 As discussed later in this section, in the 2023 GRC Decision  
28 (D.23-11-069), the Commission required PG&E to remove the 2023-2026

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<sup>9</sup> Application (a).18-12-009, Hearing Exhibit (HE)-10: Exhibit (PG&E-3), Chapter 4, HE-16: Exhibit (PG&E-4), Chapter 2A.

<sup>10</sup> A.21-06-021, Exhibit (PG&E-3), Chapter 4, Exhibit (PG&E-4), Chapter 23.

<sup>11</sup> D.23-11-069, p. 481. The Commission held that “PG&E may seek recovery of the costs presented in PG&E Ex-04 at WP Table 23-13 in a CEMA application.”

1 revenue requirements from PG&E's results of operations (RO) model for  
2 2020 GRC costs associated with the Butte Community Rebuild Program  
3 identified in PG&E's 2023 GRC workpaper Exhibit (PG&E-04),  
4 Table 23-13.<sup>12</sup> Given the circumstances of the fire and understanding that  
5 all Butte Community Rebuild Program costs related to fire-damage  
6 restoration work, the Commission directed PG&E to seek recovery of the  
7 costs in a Catastrophic Event Memorandum Account (CEMA) filing:<sup>13</sup>

8 Within the context of PG&E's role in the 2018 Camp Fire, the  
9 Commission finds that all PG&E's costs related to rebuilding in and  
10 around the Town of Paradise to replace the infrastructure destroyed in  
11 the 2018 Camp Fire shall be recorded into and subject to a  
12 reasonableness review within the CEMA framework under Pub. Util.  
13 Code Section 454.9.<sup>14</sup>

14 It is important to note that certain 2020-2022 costs shown on workpaper  
15 Table 23-13 were deemed reasonable in PG&E's 2020 GRC and thus  
16 PG&E had started to earn a revenue requirement on them during the  
17 2020-2022 period. PG&E complied with the Commission's decision in the  
18 2023 GRC, removed the costs from its results of operations model and is  
19 now seeking recovery of the 2023-2030 revenue requirements associated  
20 with these costs in this application.

## 21 **2. Revenue Requirements Associated With 2023 Costs Removed** 22 **From The 2023 GRC**

23 The Commission denied PG&E's request to recover 2023 GRC forecast  
24 costs for Butte Community Rebuild work (also shown on workpaper  
25 Table 23-13) and directed PG&E to seek recovery in a CEMA filing. PG&E  
26 is complying with the Commission's decision by seeking recovery of the

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<sup>12</sup> For reference, a copy of PG&E's 2023 GRC workpaper Exhibit (PG&E-04), Table 23-13 is provided in Attachment A.

<sup>13</sup> D.23-11-069, p. 878, Conclusions of Law (COL) 173 and 174 states that costs reflected in workpaper Exhibit (PG&E-4), WP 23-13 should not be adopted and PG&E may seek recovery in a CEMA application. Workpaper 23-13 lists the costs incurred during PG&E's 2020 GRC period (2020-2022).

<sup>14</sup> D.23-11-069, p. 479. The Commission held that "PG&E may seek recovery of the costs presented in PG&E Ex-04 at WP Table 23-13 in a CEMA application." *Id.*, p. 481. PG&E Ex-04 at WP Table 23-13 included the same categories of costs requested here (see Attachment A with actual recorded costs through 2020 and forecasted costs thereafter).

1 2023 incremental costs and associated revenue requirement in this  
2 proceeding.

3 **3. Revenue Requirements Associated With Other Costs Not**  
4 **Included In The 2020 GRC And 2023 GRC**

5 Additionally, there are certain 2020-2022 costs that were not included in  
6 PG&E's 2020 GRC and 2023 GRC and have not been reviewed for  
7 reasonableness (see Table 3-1 below). PG&E is seeking recovery of those  
8 incremental costs and the associated revenue requirement in this  
9 proceeding. PG&E did not request reasonableness review of these costs  
10 previously in order to appropriately adjust the cost request for insurance  
11 proceeds received over time. This application is the first time PG&E is  
12 submitting these costs for reasonableness review.

13 **4. Community Rebuild Program Costs Recovery in PG&E's General**  
14 **Rate Cases and Prior WMCE Applications**

15 Pre-2020 Costs in Prior WMCE Applications

16 PG&E recorded pre-2020 wildfire mitigation costs, including costs for  
17 certain Community Rebuild wildfire mitigation activities, in its Wildfire  
18 Mitigation Plan Memorandum Account (WMPMA) and Fire Risk Mitigation  
19 Memorandum Account (FRMMA) and sought recovery of these costs in  
20 Application (A.)20-09-019. The Commission approved a proposed  
21 settlement of these pre-2020 costs in D.23-02-017.

22 PG&E's 2020 GRC: 2020-2022 Costs

23 PG&E's 2020 GRC included costs for the Community Wildfire Safety  
24 Programs (CWSP) for wildfire mitigation and control activities, including  
25 hardening the electric distribution system (underground and overhead  
26 hardening), improving situational awareness, and enhancing operational  
27 practices to further reduce wildfire risks.<sup>15</sup> Since the Camp Fire occurred  
28 only a month before PG&E filed the 2020 GRC, PG&E's 2020 GRC forecast  
29 for CWSP did not contemplate wildfire mitigation activities specifically in the  
30 Butte Community Rebuild Program. However, the wildfire mitigation  
31 activities in the Community Rebuild Program are the same type of activities  
32 forecast in the 2020 GRC for the CWSP. Following the Camp Fire, PG&E

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15 A.18-12-009, HE-16: Exhibit (PG&E-4), p, 2A-2 to p. 2A-7.

1 reevaluated its approach to implementing its wildfire mitigations and, as  
2 described in 2020 GRC rebuttal testimony, PG&E modified its system  
3 hardening program to prioritize mitigation solutions based on reducing  
4 wildfire risk. As a result, PG&E expanded the electric distribution  
5 undergrounding program to include 153 circuit miles during the 2020-2022  
6 period.<sup>16</sup>

#### 7 PG&E's 2023 GRC: 2023 – 2026 Costs

8 In the 2023 GRC, PG&E subsequently proposed, on a forecast basis, to  
9 recover costs for certain additional work to continue rebuilding electric and  
10 gas distribution assets in Paradise and surrounding areas. As noted above,  
11 this work included the continued restoration of fire-damaged assets, wildfire  
12 mitigation activities (i.e., undergrounding and overhead hardening), and  
13 other non-fire-related work, such as plastic gas pipeline replacement to  
14 leverage trenching already underway. The plastic gas pipeline replacement  
15 program includes Aldyl-A and other similar plastic pipes. The 2023 GRC  
16 request excluded costs for the emergency response activities PG&E  
17 incurred immediately following the Camp Fire. The 2023 GRC request also  
18 excluded costs that were under review in A.20-09-019.

19 In PG&E's 2023 GRC Decision (D.23-11-069), the Commission denied  
20 PG&E's Community Rebuild Program requests and removed all Community  
21 Rebuild costs from PG&E's 2023 GRC forecast.

### 22 **5. Activity Based Forecasting and Application of Overheads to** 23 **Incremental Costs**

24 PG&E generally uses activity-based forecasting, which consists of cost  
25 estimates based on planned scope and schedules for work that are not tied  
26 to particular staffing levels or other resources. With activity-based forecasts,  
27 activities are completed by internal PG&E employees or contracted vendors,  
28 but the forecast does not include the specific resources that will be assigned  
29 to the work. Rather, the specific resources are assigned closer in time to  
30 the execution of the work. When the work is executed, employees record

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<sup>16</sup> A.18-12-009, HE-20: Exhibit (PG&E-18), p. 2A-13 to p. 2A-15. The 2020 GRC Decision approved a settlement that included capital cost recovery for a variety of CWSP costs in the WMBA two-way balancing account. See D.20-12-005, pp. 119-122.

1 their time to the orders, <sup>17</sup> contract and material costs are applied, and  
2 additional costs are allocated to the work orders in the form of overheads as  
3 applicable to the type of work.

4 Typically, when requesting cost recovery under CEMA, PG&E makes  
5 adjustments related to certain overheads and capitalized A&G. For  
6 example, certain overhead costs would remain in the GRC even if the  
7 associated costs are to be requested in CEMA. That is not the case for the  
8 costs being requested as part of the Butte Community Rebuild Program,  
9 even though the costs are currently recorded to CEMA. For the Butte  
10 Community Rebuild Program, PG&E removed all 2020-2022 costs and  
11 associated overheads from the 2023 GRC and are requesting recovery of  
12 these costs in this proceeding.

13 PG&E discusses activity-based forecast and application of overheads to  
14 incremental costs in more detail in Chapter 10.

## 15 **6. Incremental Costs and Incremental Revenue Requirements** 16 **Applicable to this Proceeding**

17 Table 3-1 below shows the incremental costs and incremental revenue  
18 requirements associated with costs previously deemed reasonable that are  
19 applicable to this proceeding. Table 3-1 also shows adjustments for certain  
20 costs. The costs being requested in this chapter have been reduced  
21 through four types of accounting adjustments. PG&E introduces these  
22 adjustments in Section B.2 and describes them in more detail in Section E.

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<sup>17</sup> PG&E tracks costs for projects such as overhead and underground hardening work, gas pipeline replacement and construction site clearing in individual work orders. Project costs including labor, materials, contract costs, and overheads are all tracked in the appropriate work order.

**TABLE 3-1  
BUTTE COMMUNITY REBUILD AND RESTORATION PROGRAM  
CAPITAL COST RECOVERY SUMMARY**

MAT	Workstream(s)	2020 GRC Forecast <sup>(a)</sup>	2020 GRC Costs	2023-2030 Revenue Requirement (2020-2022 Recorded Costs)	2023 GRC Forecast <sup>(d)</sup>	2023 GRC Incremental Costs and Revenue Requirement
08W	Elec. Underground Mainline Construction	Yes	Deemed reasonable	Partial request for recovery in this application <sup>(b)</sup>	Yes	Request for recovery in this application
95F	Elec. Underground Mainline Construction	No	Costs reclassified to WMBA: Deemed reasonable in 2020 GRC by virtue of WMBA <sup>(g)</sup>	Partial request for recovery in this application <sup>(b)</sup>	Yes	Recovery of the Revenue Requirement associated with CEMA work is requested in this application <sup>(c)</sup>
95F	<ul style="list-style-type: none"> <li>• Elec. Overhead Mainline Construction</li> <li>• Elec. Service Connections</li> <li>• Elec. Mobile Home Parks</li> <li>• Community Rebuild PMO</li> </ul>	No	Not previously filed – PG&E's 2024 WMCE application is the first time it has filed a CEMA application for Butte County Rebuild since the costs were incurred	Recovery of the Revenue Requirement associated with CEMA work is requested in this application	No	Request for recovery in this application
95A	Elec. Service Connections	No	Not previously filed – PG&E's 2024 WMCE application is the first time it has filed a CEMA application for Butte County Rebuild since the costs were incurred	Request for recovery in this application	Yes	Request for recovery in this application
95B	Elec. Service Connections	No	Not previously filed – PG&E's 2024 WMCE application is the first time it has filed a CEMA application for Butte County Rebuild since the costs were incurred	Request for recovery in this application	Yes	Request for recovery in this application
14D	Aldy-A Gas Mainline Construction	Yes	Deemed reasonable	Request for recovery in this application	Yes	Request for recovery in this application <sup>(e)</sup>
50A	<ul style="list-style-type: none"> <li>• Gas Main Construction</li> <li>• Gas Mobile Homes Parks</li> </ul>	Yes	Deemed reasonable	Request for recovery in this application	Yes	Request for recovery in this application
50B	Gas Services	Yes	Deemed reasonable	Request for recovery in this application	Yes	Request for recovery in this application

**TABLE 3-1  
BUTTE COMMUNITY REBUILD AND RESTORATION PROGRAM  
CAPITAL COST RECOVERY SUMMARY  
(CONTINUED)**

MAT	Workstream(s)	2020 GRC Forecast <sup>(e)</sup>	2020 GRC Costs	2023-2030 Revenue Requirement (2020-2022 Recorded Costs)	2023 GRC Forecast <sup>(d)</sup>	2023 GRC Incremental Costs and Revenue Requirement
3QA	<ul style="list-style-type: none"> <li>• Gas Main Construction</li> <li>• Gas Services</li> <li>• Gas Mobile Home Parks</li> </ul>	No	Not previously filed - PG&E's 2024 WMCE application is the first time it has filed a CEMA application for Butte County Rebuild since the costs were incurred	Request for recovery in this application	No <sup>(h)</sup>	Request for recovery in this application
3M#	Customer Care	No	Not previously filed - PG&E's 2024 WMCE application is the first time it has filed a CEMA application for Butte County Rebuild since the costs were incurred	Request for recovery in this application	Yes	Request for recovery in this application

- (a) PG&E included forecasts for these MATs in its 2020 GRC but the forecast was not specified as Butte Community Rebuild work.
- (b) Most of the incurred costs for 2020-2022 MAT 08W work were securitized and are not included in PG&E's 2024 WMCE request. See Section E below.
- (c) A portion of the incurred costs for this work were securitized and not included in PG&E's 2024 WMCE request. See Section E below.
- (d) Per PG&E's 2023 GRC decision, forecast costs were removed from the GRC and should be submitted for reasonableness review in CEMA. See discussion in Section B.
- (e) PG&E deactivated gas pipeline following the Camp Fire. PG&E took the opportunity to replace gas pipeline by installing it in a joint trench along with electric conduit that was being installed underground. Installing it in the joint trench was significantly less expense than it would have been to install it at a later date after the electric trench was closed and the areas repaved. PG&E stated in its 2023 GRC that gas pipeline was destroyed. That was incorrect and PG&E in fact deactivated the pipeline.
- (f) PG&E's forecast for this MAT is aligned with MWC 95.
- (g) Due to the nature of the work certain 95F costs that were not forecast in PG&E's 2020 GRC did qualify for WMBA.
- (h) PG&E does not forecast work in the GRC to this MAT because this is CEMA only MAT.

1           Throughout this chapter, PG&E describes the gross costs incurred for  
2 Butte Community Rebuild Program work. Prior to disallowances, PG&E  
3 spent approximately \$1,150.2 million in capital expenditures (Table 3-5,  
4 Note A) and approximately \$493.2 million in expense (Table 3-4, Note A),  
5 \$1,643.4 million total, for the Community Rebuild Program from 2018-2023.  
6 PG&E refers to the gross amounts for two reasons. First, it is important to  
7 describe the totality of the work conducted to restore and rebuild Paradise  
8 and the surrounding communities to understand why the incremental costs  
9 requested in this application were reasonable. Second, because of the  
10 Commission’s decision to remove the revenue requirements associated with  
11 the 2020 GRC costs,<sup>18</sup> and because of how PG&E applied the accounting  
12 adjustments (introduced in section B.7) to the incurred costs, it is not  
13 possible to identify specific work orders associated with PG&E’s requests in  
14 this application. Rather, it is necessary to discuss the total costs incurred  
15 prior to adjustments. PG&E describes the methods used to apply  
16 adjustments in Section E below. PG&E adjusted the gross costs incurred to  
17 arrive at the net incremental costs and incremental revenue requirements  
18 that it is seeking recovery for in this application. Of the total gross costs  
19 incurred, PG&E is seeking to recover \$361.5 million in capital and  
20 \$2.1 million in expense.

21           Tables 3-2 and 3-3 below show the walk from gross costs incurred to  
22 the incremental revenue requirements and incremental cost recovery at  
23 issue in this proceeding.

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<sup>18</sup> The Commission’s Decision in the 2023 GRC removed the costs associated with the Butte Community Rebuild Program as presented in Exhibit (PG&E-04), WP Table 23-13. This workpaper shows the recorded costs for the 2020 GRC period (2020-2022). Because the costs in the 2020 GRC were already deemed reasonable, the Commission’s Decision ultimately removed the revenue requirement associated with the 2020 GRC costs. PG&E’s work order structure does not account for revenue requirement. See D.23-11-069, p. 479. The Commission held that “PG&E may seek recovery of the costs presented in PG&E Ex-04 at WP Table 23-13 in a CEMA application” *Id.*, p. 878, COL 174.

**TABLE 3-2**  
**BUTTE COMMUNITY REBUILD AND RESTORATION PROGRAM**  
**SUMMARY OF INCREMENTAL COST AND REVENUE REQUIREMENT RECOVERY IN THIS**  
**PROCEEDING – EXPENSE**

Line No.	Activity	Gross Costs	Total Adjustments	Total Request in this Proceeding for Incremental Cost Recovery
1	Electric Restoration	–	–	–
2	Electric Rebuild	413,386	(399,769)	13,617
3	Gas Restoration	64,678	(65,476)	(798)
4	Gas Rebuild	15,079	(25,861)	(10,782)
5	Customer Care	80	(37)	43
6	Total	\$493,223	\$(491,143)	\$2,080
7	Reconciliation to Table 3-4	\$493,223 <sup>(a)</sup>	\$(491,143) <sup>(b)</sup>	\$2,080 <sup>(c)</sup>

(a) Table 3-4, sum of lines 1 and 2: \$428,545 + \$64,678 = \$493,223.

(b) Table 3-4, sum of lines 3, 5, 6, and 7: \$(65,470) + \$(383,133) + \$(41,221) + \$ (1,319) = \$(491,143).

(c) Table 3-4, line 8: \$2,080.

**TABLE 3-3  
BUTTE COMMUNITY REBUILD AND RESTORATION PROGRAM  
SUMMARY OF INCREMENTAL COST AND REVENUE REQUIREMENT RECOVERY IN THIS PROCEEDING BY MAT – CAPITAL**

Line No.	MAT	Gross Costs (A)	Total Adjustments (B)	Incremental Cost Recovery for Costs not yet Reviewed (Prior to 2022) (C)	Incremental 2023-2030 Cost Recovery <sup>(a)</sup> (D)	Incremental Cost Recovery (2023 GRC) (E)	Total Request in this Proceeding for Incremental Cost Recovery (F) <sup>(b)(c)</sup>
1	08W	\$261,315	\$(161,954)	\$0	\$1,689	\$97,672	\$99,361
2	95A	175,970	(178,234)	(1,237)	–	(1,026)	(2,263)
3	95B	7,268	(7,328)	4	–	(64)	(60)
4	95F	420,357	(302,846)	19,125	875	97,510	117,510
5	14D	102,164	(522)	–	94,454	7,188	101,642
6	3M#	893	0	146	–	747	893
7	3QA	144,421	(136,732)	1,204	–	6,485	7,690
8	50A	27,374	(972)	–	15,076	11,325	26,402
9	50B	10,459	(176)	–	3,945	6,338	10,283
10	Total	\$1,150,222	\$(788,765)	\$19,242	\$116,039	\$226,175	\$361,457
11	Reconciliation to Table 3-5	\$1,150,222 <sup>(d)</sup>	\$(788,765) <sup>(e)</sup>				\$361,457 <sup>(f)</sup>

- (a) Costs associated with the 2017 & 2020 GRC revenue requirement were deemed reasonable in PG&E's 2017 & 2020 GRC. Incremental Revenue Requirement for 2023-2030 related to these 2022 and prior recorded costs are requested.
- (b) Column F (Total Request) = Column A (Gross Costs) – Column B (Total Adjustments).
- (c) Column F (Total Request) = Column C (Incremental Costs Prior to 2022 not Reviewed) + Column D (Incremental 2023-2030 Cost Recovery on 2020-2022 recorded costs) + Column E (Incremental Cost Recovery 2023 GRC)
- (d) Table 3-5, sum of lines 1 and 2: \$896,119 + \$254,103 = \$1,150,222.
- (e) Table 3-5, sum of lines 3, 5, 6, 7, 8, and 9: \$(258,756) + \$(30,678) + \$(241,246) + \$(255,028) + \$(1,405) + \$(1,652) = \$(788,765).
- (f) Table 3-5, line 10: \$361,457.

1                   **7. Accounting for the Community Rebuild Costs**

2                   From 2018-2023, PG&E spent approximately \$1,150.2 million in capital  
3 expenditures and approximately \$493.2 million in expense, \$1,643.4 million  
4 total, to restore and rebuild Paradise and the surrounding communities. In  
5 this application PG&E is seeking to recover approximately \$2.1 million in  
6 expense, which is less than 1 percent of total expense and \$361.5 million in  
7 capital expenditures, representing approximately 31 percent of total capital  
8 expenditure. The expense primarily includes the costs to clear vegetation  
9 from the building sites and the costs to manage the restoration and rebuild  
10 efforts. The capital expenditures include the contracts, internal and external  
11 labor, materials, supplies and equipment to: (1) restore utility services to the  
12 communities; (2) underground and overhead-harden electric systems for  
13 wildfire mitigation and safety purposes; and (3) replace gas pipelines  
14 undamaged by the fire. The undergrounding of electric lines will provide  
15 near permanent wildfire risk reduction and make roads and highways safer if  
16 another fire occurs. The gas pipeline replacement work was necessary to  
17 comply with State and Federal recommendations and bring existing gas  
18 infrastructure to modern construction standards. It also reduced costs by  
19 leveraging open trenching for the electric undergrounding work.

20                   PG&E has reduced the amount it seeks to recover in this application by  
21 approximately \$1,278.3 million through four accounting adjustments:

- 22 1) Wildfire OII Disallowance:<sup>19</sup> On June 27, 2019, the CPUC issued the  
23 Wildfire OII (I.19-06-015) to determine whether PG&E “violated any  
24 provision(s) of the California Public Utilities Code, Commission General  
25 Orders or decisions, or other applicable rules or requirements pertaining  
26 to the maintenance and operation of its electric facilities that were  
27 involved in igniting fires in its service territory in 2017.” Settling Parties  
28 jointly submitted a proposed Settlement Agreement (SA) to the CPUC,  
29 in connection with the Wildfire OII which the CPUC approved with  
30 certain modifications.<sup>20</sup> The Wildfire OII disallowances are applied to  
31 the immediate restoration of service and the Butte Community Rebuild

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<sup>19</sup> D.20-05-019.

<sup>20</sup> D.20-05-019, pp. 33-34.

1 Program in accordance with the approved Settlement Agreement.  
2 PG&E applied disallowances of \$448.6 million expense and  
3 \$289.4 million capital against restoration and rebuild activities.

- 4 2) Assembly Bill (AB) 1054 Securitization: PG&E issued three Wildfire  
5 Hardening Recovery Bonds in accordance with the provisions of AB  
6 1054.<sup>21</sup> PG&E applied these securitization funds against capital  
7 expenditures deemed reasonable in the 2020 GRC, resulting in the  
8 removal of \$255.0 million from the Butte Community Rebuild Program  
9 capital costs.
- 10 3) Insurance Proceeds: PG&E recovered \$282.5 million from its insurance  
11 carriers and used these proceeds to reduce the costs of the Butte  
12 Community Rebuild Program for customers.
- 13 4) Ernst & Young (EY) Recommended Adjustments: PG&E voluntarily  
14 removed \$2.7 million following an audit of PG&E's restoration and  
15 rebuild costs performed by EY. PG&E describes the EY audit process  
16 and results in Chapters 10 and 11.

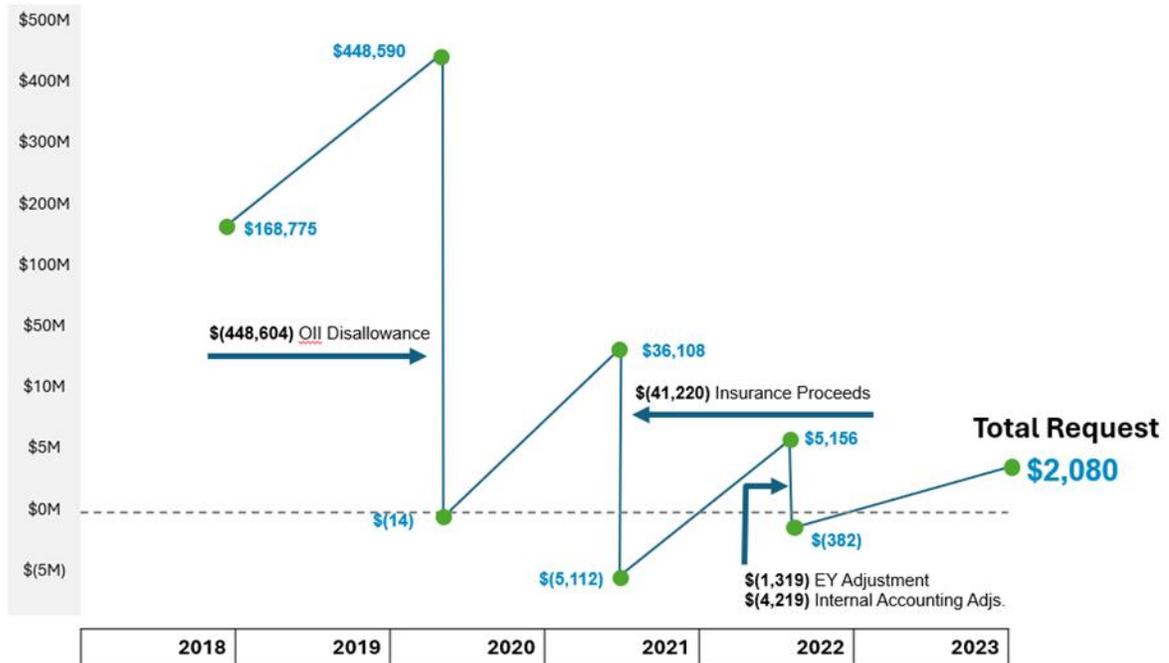
17 The reductions related to AB 1054 Securitization and the EY audit  
18 adjustments were applied to specific work orders whereas the total Wildfire  
19 OII Disallowance and insurance proceeds were subtracted from the gross  
20 costs incurred. PG&E describes these accounting adjustments and  
21 application to costs in Section E below.

22 Figures 3-2 and 3-3 below show the costs PG&E incurred for restoration  
23 and rebuild work and the impact that the Wildfire OII Disallowance, AB 1054  
24 Securitization, and insurance proceeds had on the incurred cost balance by  
25 year for expense (Figure 3-2) and capital amounts (Figure 3-3).

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<sup>21</sup> D.21-06-030, D.22-08-004, and D.24-02-011.

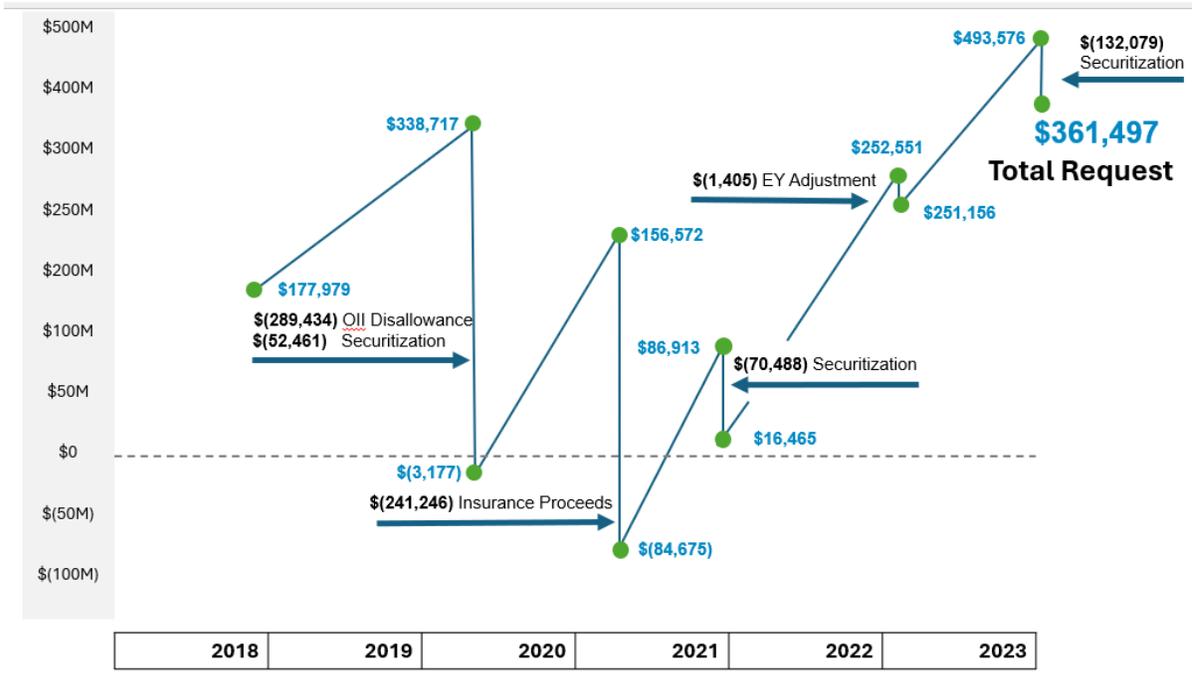
**FIGURE 3-2  
INCURRED EXPENSE COSTS INCORPORATING DISALLOWANCES AND  
INSURANCE PROCEEDS  
(THOUSANDS OF DOLLARS)**



Note Figure not to scale.

1 Figure 3-2 shows that of the \$493.2 million of expense incurred for  
 2 restoration and rebuild activities, only \$2.1 million remains after accounting  
 3 for the Wildfire Oil Disallowance, insurance proceeds, and EY  
 4 Recommended Adjustments (see Table 3-4). The restoration expense costs  
 5 were offset by Wildfire Oil Disallowance and PG&E is not seeking to recover  
 6 them. PG&E only seeks recovery of certain expenses incurred for wildfire  
 7 mitigation and associated support activities. The key drivers of expense  
 8 amounts were Construction Site Clearing and Program Management Office  
 9 costs. PG&E discusses these workstreams in Section D below.

**FIGURE 3-3  
INCURRED CAPITAL COSTS INCORPORATING DISALLOWANCES AND  
INSURANCE PROCEEDS  
(THOUSANDS OF DOLLARS)**



Note: Figure not to scale.

Figure 3-3 was not updated as part of the Gas Errata Adjustment as it reflects net adjusted amounts and has no impact on our total capital request.

1                    Figure 3-3 shows that \$361.5 million remains after accounting for the  
 2                    Wildfire OII Disallowance, AB 1054 securitization, EY adjustment, and  
 3                    insurance proceeds (Table 3-5). The costs related to capital restoration  
 4                    activities were offset by the Wildfire OII Disallowance and PG&E is not  
 5                    seeking to recover them. PG&E is seeking to recover capital costs for  
 6                    rebuild work (i.e. wildfire mitigation and gas activities). The key rebuild  
 7                    activities that make up the amount PG&E is seeking to recover are:  
 8                    (1) Electric Mainline Underground Construction, (2) Electric Overhead  
 9                    Mainline Construction, (3) Aldyl-A (Plastic Pipe) Gas Underground  
 10                    Construction; and (4) Construction Site Clearing. PG&E describes these  
 11                    key rebuild activities, the benefits to customers and the community, and the  
 12                    cost drivers in Section D.2 below.

1 **C. Summary of Request**

2 In connection with the Camp Fire in November 2018, PG&E sent a CEMA  
3 Notification Letter to the CPUC on December 7, 2018, providing notice that  
4 PG&E would be recording costs associated with the repair of facilities and  
5 restoration of service pertaining to the fire. The restoration costs would include  
6 the replacement and/or repair of electric distribution facilities, gas transmission  
7 and distribution facilities, and hydroelectric power generation facilities damaged  
8 by the 2018 Camp Fire.<sup>22</sup>

9 PG&E is requesting recovery of \$361.5 million capital (Table 3-5) and  
10 \$2.1 million expense (Table 3-4) in this application. This represents: (1) the  
11 amounts PG&E incurred to rebuild the gas and electric distribution systems  
12 following the Camp Fire after removing costs disallowed by the Commission in  
13 the Wildfire OII; and (2) certain costs unrelated to the fire rebuild. PG&E is not  
14 seeking to recover any restoration costs.

15 The Commission penalized PG&E for its role in the Camp Fire in the Wildfire  
16 OII and PG&E agreed to a disallowance of \$738 million for certain expense and  
17 capital expenditures (Table 3-30). The Commission noted in the Wildfire OII that  
18 it was not reasonable to bar PG&E from seeking future recovery of costs  
19 associated with the Camp Fire.<sup>23</sup>

20 PG&E is seeking to recover the rebuild costs that were not disallowed by the  
21 Wildfire OII. In addition, PG&E is seeking to recover costs unrelated to any fire  
22 damage. For example, PG&E replaced 57.1 miles of plastic pipe (Table 3-8, line  
23 6) that was not damaged by the fire. PG&E planned to replace the plastic pipe  
24 in and around the area of the Camp Fire in the future as part of the Plastic Pipe  
25 Replacement Program and recover the costs for the work in a future GRC.  
26 Instead, PG&E accelerated this pipeline replacement because there was an  
27 opportunity to replace the plastic pipe at the same time and in the same location  
28 as the electric distribution undergrounding was occurring to reduce the gas  
29 pipeline replacement costs.

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22 Implementation of the Catastrophic Event Memorandum Account for the 2018 Camp Fire (Dec. 7, 2018), available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/electric-costs/cema-letters/pge-implementation-of-the-cema-for-the-2018-camp-fire.pdf> (accessed Nov. 15, 2024).

23 D.20-05-019, p. 79, Findings of Fact 43.

1           Given the adjudication of the Wildfire OII and the Commission’s decision to  
2 allow PG&E to seek future cost recovery, it is reasonable for PG&E to seek  
3 recovery in this application of the remaining costs that were not disallowed by  
4 the Commission, including costs that were not part of the fire rebuild work.

5           The Butte Community Rebuild Program costs in this request include  
6 expenditures recorded by the Electric Operations, Gas Operations, and  
7 Customer Care organizations. In Sections D and E, PG&E describes the gross  
8 costs incurred by workstream. Tables 3-4 and 3-5 below show the total expense  
9 and capital amounts incurred for rebuild and restoration activities and the  
10 associated accounting adjustments to arrive at PG&E’s total adjusted expense  
11 and capital amounts for the Butte Community Rebuild Program.

**TABLE 3-4**  
**BUTTE COMMUNITY REBUILD AND RESTORATION RECORDED COSTS 2018-2023 – EXPENSE**  
**(THOUSANDS OF DOLLARS)**

Line No.	Activity	Electric Distribution	Gas Distribution	Customer Care	Total
1	Rebuild Costs <sup>(a)</sup>	\$413,386	\$15,079	\$80	\$428,545
2	Restoration Costs <sup>(a)</sup>	–	64,678	–	64,678
3	Oil Disallowance – Restoration	–	(65,470)	–	(65,470)
4	Total Costs Less Restoration	\$413,386	\$14,287	\$80	\$427,753
5	Oil Disallowance – Rebuild	(383,096)	0	(37)	(383,133)
6	Insurance Proceeds – Rebuild	(15,360)	(25,861)	–	(41,221)
7	EY Exclusions	(1,313)	(6)	–	(1,319)
8	Total Costs After Adjustments	\$13,617	(\$11,580)	\$43	\$2,080

(a) Total gross expense costs incurred are: \$428,545 + \$64,678 = \$493,223.

**TABLE 3-5  
BUTTE COMMUNITY REBUILD AND RESTORATION RECORDED COSTS 2018-2023 – CAPITAL  
(THOUSANDS OF DOLLARS)**

Line No.	Activity	Electric Distribution	Gas Distribution	Customer Care	Total
1	Rebuild Costs <sup>(a)</sup>	\$682,936	\$212,290	\$893	\$896,119
2	Restoration Costs <sup>(a)</sup>	181,975	72,128	–	254,103
3	OII Disallowance -Restoration	(186,934)	(71,822)	–	(258,756)
4	Total Costs Less Restoration	\$677,978	\$212,611	\$893	\$891,466
5	OII Disallowance – Rebuild	\$(30,678)	\$0	–	\$(30,678)
6	Insurance Proceeds	(176,653)	(64,594)	–	(241,246)
7	AB1054 Securitization	(255,028)	–	–	(255,028)
8	EY Exclusions	(1,070)	(334)	–	(1,405)
9	Gas Errata Adjustment <sup>(b)</sup>		(1,652)		(1,652)
10	Total Costs After Adjustments	\$214,548	\$146,016	\$893	\$361,457

- (a) Total gross capital costs incurred are: \$896,119 + \$254,103 = \$1,150,222
- (b) With its errata testimony of October 03, 2025, PG&E has included \$1.652 million of additional incremental capital expenditures incurred between 2019 and 2023 as part of its Gas work activities described in this testimony. PG&E does not seek recovery of these costs in this proceeding; they are included here for reasonableness review and for completeness of our total cost reporting for these Gas activities. PG&E has applied an offsetting accounting adjustment for this amount (\$1.652 million) so that the net capital expenditure total underlying our revenue requirement request remains unchanged from the original application.

1       **D. Community Rebuild**

2               **1. Summary of Request by Rebuild Activity**

3               In this application, PG&E seeks to recover capital and expense costs  
4               incurred for rebuild activities (i.e., wildfire mitigation and gas activities).  
5               PG&E is not seeking to recover costs for restoration work as these amounts  
6               were disallowed under the Wildfire OII decision.

7               PG&E tracks the expenditures related to restoration and rebuilding of  
8               services by workstream. Tables 3-6 and 3-7 below show the rebuild  
9               workstreams and the expense and capital costs incurred for each one.  
10              Table 3-8 shows the units of work completed for activities by workstream.

11              PG&E then describes the activities it undertook to rebuild Paradise and  
12              the surrounding areas. PG&E provides a workpaper in Attachment A that  
13              aligns with how these costs were presented in the 2023 GRC (and which  
14              were subsequently removed from recovery in the GRC by the  
15              Commission).<sup>24</sup> These tables provide total costs without disallowances or  
16              other offsets.

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<sup>24</sup> D.23-11-069, p. 482.

**TABLE 3-6  
BUTTE COMMUNITY REBUILD COSTS BY ACTIVITY WORKSTREAMS – EXPENSE  
(THOUSANDS OF DOLLARS)**

Line No.	Activity Workstreams	MAT	2018	2019	2020	2021	2022	2023	Total
1	Construction Site Clearing	IF#, IFA, IFB, IFF	\$144,585	\$231,744	\$23,844	\$3,624	\$(1,814)	\$1,073	\$403,055
2	Comm. Rebuild PMO	AB#, IFF, LXA	-	2,904	6,142	3,215	(204)	1,045	13,102
3	Gas Main Construction	LXA	-	5,554	(4,244)	-	-	-	1,310
4	Gas Services	FIM, LXA	-	71	8,454	2,697	(642)	104	10,685
5	Telecom Pole Removal	IFA	-	-	-	-	177	23	200
6	Electric Service Connections	IFF	(44)	-	156	-	-	-	112
7	Customer Care	IG#	-	37	39	4	-	-	80
8	Total Rebuild		\$144,541	\$240,310	\$34,391	\$9,540	\$(2,483)	\$2,245	\$428,545

**TABLE 3-7  
BUTTE COMMUNITY REBUILD COSTS BY ACTIVITY WORKSTREAMS – CAPITAL  
(THOUSANDS OF DOLLARS)**

Line No.	Activity Workstreams	MAT	2018	2019	2020	2021	2022	2023	Total
1	Electric Underground Mainline Construction	08W, 95F	-	\$38,302	\$64,573	\$98,530	\$151,467	\$186,302	\$539,173
2	Aldyl-A Gas Mainline Construction	14D	-	14,782	27,663	20,836	31,694	7,188	102,164
3	Electric Service Connections	95A, 95B, 95F	-	8,037	18,543	24,852	18,687	14,885	85,003
4	Gas Main Construction	3QA, 50A,	\$1	(2)	4,156	7,705	17,442	18,062	47,364
5	Gas Services	3QA, 50B	-	755	7,987	13,746	13,726	14,354	50,568
6	Electric Overhead Mainline Construction	95F	-	16,980	16,899	812	211	384	35,287
7	Electric Mobile Home Parks	95F	-	1,619	7,544	7,312	2,862	1,163	20,500
8	Gas Mobile Home Parks	3QA, 50A	-	1,146	5,763	2,791	1,589	903	12,192
9	Community Rebuild PMO	95F	-	-	5,283	(2,310)	-	-	2,973
10	Customer Care	3M#	-	74	73	-	-	747	893
11	Total Rebuild		\$1	\$81,695	\$158,484	\$174,273	\$237,679	\$243,988	\$896,119

1 Table 3-8 shows the units of work completed for rebuild and restoration  
 2 activities by workstream. Non-unitized work, such as the Program  
 3 Management Office, is excluded from this table.

**TABLE 3-8  
 UNITS BY WORKSTREAM**

Line No.	Workstream	MAT	Unit Category	Units					Total
				2019	2020	2021	2022	2023	
1	Electric Underground Mainline Construction	08W, 95F	Circuit Miles	0.4	34.4	32.8	59.9	73.9	201.4
2	Electric Overhead Mainline Construction	95F	Miles	15.6	19.3	5.9	1.0	0.3	42.1
3	Electric Service Connections	95A, 95B, 95F	Electric Services	411	1337	996	817	966	4,527
4	Electric Mobile Home Parks	95F	Mobile Home Spaces	20	302	202	102	127	753
5	Construction Site Clearing	IF#, IFA, IFB, IFF	Trees	14,363	8,887	2,711	1,529	1,916	29,406
6	Aldyl-A Gas Mainline Const.	14D	Miles	16.8	17.2	9.0	9.2	5.4	57.6
7	Gas Main Construction	50A	Miles	0	0.1	3.3	3.8	5.6	12.8
8	Gas Services	3QA, 50B	Gas Services	3	157	29	408	822	1,419
9	Gas Mobile Home Parks	3QA, 50A	Mobile Home Spaces	20	302	202	137	92	753

4 **2. Reducing Costs and Helping Customers Rebuild**

5 PG&E identified several opportunities to reduce project costs and  
 6 support customers rebuild. These include the following:

- 7 1) PG&E reduced the cost of electric mainline undergrounding and plastic  
 8 pipe replacement by placing the new electric conduit and gas pipe in a  
 9 joint trench in areas where work was planned in the same locations.  
 10 Joint trenching reduced the cost for constructing the gas and electric  
 11 assets separately.
- 12 2) PG&E expanded its Emergency Consumer Protection Plan for  
 13 customers impacted by the Camp Fire to provide underground electric  
 14 service pedestals (including installation) to eligible residential customers  
 15 who requested temporary service. Installing an undergrounding  
 16 pedestal is less costly than converting overhead service poles to the  
 17 underground line.

- 1           3) PG&E deployed propane tanks to gas customers who were awaiting  
2           restoration along with quarterly credits that were provided to support  
3           refueling costs.
- 4           4) Additionally, through a giveback program, PG&E donated excavated  
5           spoils from trenching activities back to the community at no additional  
6           cost. This program avoided costs in disposing of the spoils at a waste  
7           facility and also helped lower customers' costs in their rebuilding effort.
- 8           5) In order to accelerate rebuild work, PG&E ensured there was funding for  
9           the local water utility to conduct mark and locate work and keep pace  
10          with PG&E's undergrounding efforts.
- 11          6) PG&E deployed dedicated customer and community outreach teams.  
12          These teams focused on providing direct support and established  
13          accelerated customer service cycle times to more quickly serve  
14          customers affected by the disaster.

### 15           **3. Key Rebuild Workstreams**

16           The key rebuild activities for which PG&E seeks to recover capital and  
17           expense rebuild costs in this application are as follows: (1) Spending on  
18           Electric Underground Mainline Construction, (2) Electric Overhead Mainline  
19           Construction, (3) Plastic Pipe Gas Underground Construction, and  
20           (4) Construction Site Clearing. PG&E incurred \$676.2 million capital and  
21           \$403.1 million expense for these four activities, significantly more than the  
22           \$361.5 million capital and \$2.1 million expense that PG&E is seeking to  
23           recover in this proceeding.

#### 24                   **a. Electric Underground Mainline Construction**

##### 25                           **1) Summary of Request**

26           The Electric Underground Mainline Construction workstream  
27           consists of restoring underground mainline that were previously  
28           undergrounded prior to the 2018 Camp Fire or were overhead in a  
29           Tier 1 HFTD previously. It also includes the underground  
30           construction of electric distribution assets in Tier 2 or Tier 3 HFTD  
31           areas that were previously overhead and are being transitioned to  
32           underground.

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Table 3-7 above shows the costs for Electric Underground Mainline work tracked in MATs 95F and 08W. MAT 08W is the code PG&E uses to track this work in its GRC. From 2019-2023, PG&E completed a total of 203.7 miles of electric underground mainline construction (Table 3-8). PG&E incurred \$0 in expense and \$539.2 million in capital (Table 3-7) for Electric Underground Mainline rebuild work.

**2) Benefits of Undergrounding**

PG&E chose to underground electric lines following the Camp Fire because undergrounding will: (1) significantly reduce the risk of ignition and help to mitigate against wildfires; (2) improve public safety; (3) reduce the impacts from Public Safety Power Shutoffs (PSPS); (4) help the Town of Paradise meet its rebuilding goals; and (5) avoid future costs. The Camp Fire footprint and areas where electric lines were undergrounded are shown in Figure 3-4.

**FIGURE 3-4  
UNDERGROUND AREA IN CAMP FIRE FOOTPRINT**



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17

- Reduce Ignition Risk: Undergrounding electric lines significantly reduces wildfire risk from powerlines by reducing ignition risk.

1 PG&E estimates that underground lines are approximately  
2 98 percent effective in mitigating ignition risk. Undergrounding in  
3 areas previously impacted by wildfire is especially important as the  
4 occurrence of a wildfire represents “realized risk” and it is crucial to  
5 aggressively manage future wildfire risk by undergrounding electric  
6 lines.

7 In addition, undergrounding distribution lines eliminates the  
8 need to repair or replace overhead lines damaged by fire. For  
9 example, Bucks Creek 1101 Circuit, has been damaged by wildfire  
10 multiple times in the last decade and required repairs and  
11 replacement each time.

- 12 • Improved Public Safety: Undergrounding electric assets helps  
13 improve public safety and provide access for first responders and  
14 emergency vehicles during an emergency by eliminating blockages  
15 to ingress and egress routes in the event of a catastrophic event.  
16 During the 2018 Camp Fire, many wood distribution poles fell into  
17 the streets and blocked access to exit routes. Eliminating the threat  
18 of falling poles and downed wires by relocating overhead lines  
19 underground eliminates the possibility of electrical fires or  
20 electrocutions from overhead lines and eliminates the blockage of  
21 ingress and egress routes from downed poles during emergencies  
22 as shown in Figure 3-5.

**FIGURE 3-5  
EXIT ROUTE IMPACTED BY DOWNED POLE**



- 1
- Reduced Impacts from Public Safety Power Shutoff (PSPS):  
2 Undergrounding distribution lines will significantly reduce impacts  
3 from PSPS events on the community. Areas with underground  
4 distribution lines can remain energized during a distribution PSPS  
5 event.
  - Help Town of Paradise Meet their Rebuilding Objectives:  
6 Government leaders and PG&E's customers in the Town of  
7 Paradise and Butte County expressed a strong desire for  
8 undergrounding utilities in their community with the goal of reducing  
9 wildfire risk, meeting the community's desire for unobstructed  
10 ingress and egress routes, and improving the town's urban design  
11 through the rebuild process. In order to support the community's  
12 desire for undergrounding utilities, PG&E developed its plans to  
13 support the community's rebuilding objectives by undergrounding  
14 utilities as much as possible, including joint trenching of gas and  
15 electric facilities where appropriate.<sup>25</sup> After the Camp Fire, the  
16

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<sup>25</sup> As Paradise Rebuild Begins, PG&E Commits to Underground Powerlines (May 22, 2019), available at: <https://investor.pgecorp.com/news-events/press-releases/press-release-details/2019/As-Paradise-Rebuild-Begins-PGE-Commits-to-Underground-Power-Lines/default.aspx>, (accessed Nov. 15, 2024).

Town of Paradise Town Council instituted a “dig-once” ordinance, thereby requiring PG&E to do joint trenching to include both electric wires and gas pipelines in the same trench. PG&E has and will continue coordinating its construction closely with the Town of Paradise so that undergrounding can be completed with as little disruption as possible as the community rebuilds.

- Avoided Future Costs: PG&E anticipates that undergrounding powerlines will reduce overhead powerline maintenance expenses and will reduce long-term repair costs.

### 3) Cost Drivers

Table 3-9 below shows the total incurred costs broken down by cost element group. PG&E describes the work activities associated with Electric Undergrounding Mainline Construction in Section D.5 below.

**TABLE 3-9  
BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
ELECTRIC UNDERGROUND MAINLINE CONSTRUCTION – CAPITAL  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Groups	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$12,886	\$41,111	\$62,941	\$95,783	\$135,075	\$347,797
2	Labor External	67	73	283	3,635	4,578	8,635
3	Labor Internal	11,176	10,530	9,155	12,865	16,329	60,056
4	Materials & Other	14,173	12,859	26,150	39,185	30,320	122,686
5	Total	\$38,302	\$64,573	\$98,530	\$151,467	\$186,302	\$539,173

### b. Electric Overhead Mainline Construction

#### 1) Summary of Request

The Electric Overhead Mainline Construction workstream includes repairing or replacing fire-damaged overhead distribution assets for customers who were served by overhead distribution wires in remote locations and undergrounding was not determined to be an appropriate alternative. In areas outside of the undergrounding footprint shown in Figure 3-4 above, PG&E replaced the assets with overhead distribution assets at the current

1 hardened standards. From 2019-2023, PG&E completed 42.1 miles  
2 of overhead mainline construction (Table 3-8) and incurred \$0 in  
3 expense and \$35.3 million (Table 3-7) in capital for Electric  
4 Overhead Mainline Construction.

## 5 **2) Benefits of Overhead System Hardening**

6 Overhead system hardening, also referred to as “covered  
7 conductor” installation, involves installing conductor that is insulated  
8 with abrasion-resistant polyethylene coating. Installing covered  
9 conductor can help reduce the likelihood of faults, and by extension  
10 ignitions, due to line-to-line contacts, tree-branch contacts, faults  
11 caused by animals, and mylar balloons. PG&E estimates that  
12 covered conductor, without other protective devices, is  
13 approximately 64 percent effective at mitigating against wildfire  
14 risk.<sup>26</sup>

15 Overhead system hardening is an effective mitigation for many  
16 transient-type outages (brief power interruptions typically caused by  
17 temporary faults on powerlines). Overhead system hardening also  
18 includes installing covered jumpers and animal protection in addition  
19 to the covered conductor. This approach eliminates most exposed  
20 energized components and is effective in mitigating many  
21 phase-to-ground type outages.

## 22 **3) Cost Drivers**

23 Table 3-10 below shows the total incurred costs broken down by  
24 cost element group. PG&E describes the work activities associated  
25 with Electric Overhead Mainline Construction in Section D.5 below.

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<sup>26</sup> PG&E’s 2023-2025 Base WMP, R6, July 5, 2024, page 1068, available at:  
<<https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/pge-wmp-r6-07052024.pdf>> (accessed Nov. 15, 2024).

**TABLE 3-10**  
**BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP**  
**ELECTRIC OVERHEAD MAINLINE CONSTRUCTION – CAPITAL**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$11,031	\$13,983	\$2,105	\$971	\$394	\$28,484
2	Labor External	69	(26)	0	10	5	59
3	Labor Internal	1,815	278	218	13	7	2,331
4	Materials & Other	4,065	2,665	(1,512)	(783)	(23)	4,413
5	Total	\$16,980	\$16,899	\$812	\$211	\$384	\$35,287

1 **c. Aldyl-A Gas (Plastic Pipeline) Underground Construction**

2 **1) Summary of Request**

3 This workstream consists of PG&E’s proactive replacement of  
4 plastic assets as part of the Plastic Pipe Replacement Program.  
5 During the 2018 Camp Fire, PG&E deactivated and replaced plastic  
6 gas mains that were to be replaced under the Plastic Pipe  
7 Replacement Program.

8 From 2019 through 2023, PG&E completed 57.1 miles of gas  
9 plastic pipeline underground construction (Table 3-8) and incurred  
10 \$0 in expense and \$101.8 million capital costs (Table 3-7).

11 **2) Benefits of Plastic Pipeline Underground**  
12 **Construction**

13 The Plastic Pipe Replacement Program addresses potential  
14 safety issues related to plastic pipes in a cost-efficient manner.  
15 PG&E established the Plastic Pipe Replacement Program in 2012 to  
16 mitigate risks associated with leaks on gas distribution mains and  
17 services installed before 1985 with Aldyl-A plastic and similar plastic  
18 materials. Plastic materials of pre-1985 vintage have a susceptibility  
19 to slow crack growth when exposed to stress, such as tree roots,  
20 differential settlement, or rock impingement. In addition, external  
21 stress can cause the initiation and propagation of cracks leading to  
22 leaks. Pipeline and Hazardous Materials Safety Administration

(PHMSA)<sup>27</sup> and the CPUC<sup>28</sup> have notified operators of the risks associated with vintage plastic pipelines and recommended mitigating these risks.

As part of the Butte Community Rebuild Program, PG&E identified the locations where it planned to underground both gas and electric assets in the same location and installed them in a joint trench. Performing joint trench work reduced the cost for constructing the gas and electric assets separately.

### 3) Cost Drivers

Table 3-11 below shows the total incurred costs broken down by cost element group. PG&E describes the work activities associated with Plastic Pipe Gas Underground Construction in Section D.5 below.

**TABLE 3-11  
BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
PLASTIC PIPE GAS UNDERGROUND CONSTRUCTION – CAPITAL  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$11,086	\$19,743	\$14,872	\$28,306	\$9,281	\$83,288
2	Labor External	15	5	80	390	801	1,292
3	Labor Internal	3,635	4,747	3,417	2,787	1,255	15,841
4	Materials & Other	47	3,167	2,467	211	(4,148)	1,744
5	Total	\$14,783	\$27,663	\$20,836	\$31,694	\$7,188	\$102,164

#### d. Construction Site Clearing

The construction site clearing workstream consisted of the activities required to maintain a safe construction site for crews working on the Butte Community Rebuild Program. The most significant effort was removing the dead trees in construction zones where PG&E’s rebuild

<sup>27</sup> A.21-06-021, Exhibit (PG&E-3), WP 4-99 to WP 4-106, PHMSA’s Advisory Bulletins: ADB-99-02; ADB-02-07; and, ADB 07-01.

<sup>28</sup> A.21-06-021, Exhibit (PG&E-3), WP 4-107, CPUC’s Hazard Analysis & Mitigation Report on Aldyl A Polyethylene Gas Pipelines in California (June 11, 2014).

1 activities were scheduled to occur. Site clearing also included on-going  
 2 efforts to remove general debris related to the fire.

3 From 2018 to 2023, PG&E cleared 29,406 trees (Table 3-8) and  
 4 incurred \$403.1 million in expense (Table 3-6) and \$0 capital costs.  
 5 Table 3-12 below shows the total incurred costs broken down by cost  
 6 element group. PG&E describes the work activities associated with  
 7 Construction Site Clearing in Section D.5 below.

**TABLE 3-12  
 BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
 CONSTRUCTION SITE CLEARING - EXPENSE  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2018	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$107,393	\$205,978	\$21,276	\$3,022	\$2,067	\$346	\$340,082
2	Labor External	286	1,698	277	21	0	754	3,037
3	Labor Internal	22,908	11,232	1,568	436	76	0	36,220
4	Materials & Other	13,998	12,836	722	145	(3,958)	(28)	23,716
5	Total	\$144,585	\$231,744	\$23,844	\$3,624	\$(1,814)	\$1,073	\$403,055

8 **4. Other Rebuild Workstreams**

9 **a. Electric Service Connections**

10 The Electric Services workstream restored electric services for  
 11 PG&E customers who were impacted by the Camp Fire before the  
 12 customers were ready to move back into their homes. Electric services,  
 13 within the planned underground footprint in Paradise and surrounding  
 14 areas, were constructed underground and share a trench with the gas  
 15 service if the customer also receives gas from PG&E. In the areas that  
 16 were not within the planned underground footprint, PG&E restored the  
 17 service as an overhead service. If a customer did not have electric  
 18 service prior to the 2018 Camp Fire, they applied for service under the  
 19 Rule 16 Tariff. PG&E's dedicated customer service team supported  
 20 customers through this process.

21 The expenditures in this workstream cover both temporary and  
 22 permanent service installations. From 2019-2023, PG&E restored  
 23 electric service to 3,182 structures (Table 3-8). PG&E incurred  
 24 \$0.1 million in expense (Table 3-6) and \$85.0 million in capital costs

1 (Table 3-7) related to Electric Service Connections. Tables 3-13 and  
 2 3-14 below show the total incurred costs broken down by cost element  
 3 group. PG&E describes the work activities associated with Electric  
 4 Service Connections in Section D.5 below.

**TABLE 3-13  
 BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
 ELECTRIC SERVICE CONNECTIONS - CAPITAL  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$4,936	\$13,674	\$20,641	\$15,075	\$11,516	\$65,840
2	Labor External	–	28	9	134	515	686
3	Labor Internal	1,095	1,803	1,482	1,673	1,595	7,649
4	Materials & Other	2,007	3,038	2,720	1,805	1,258	10,828
5	Total	\$8,037	\$18,543	\$24,852	\$18,667	\$14,885	\$85,003

**TABLE 3-14  
 BUTTE REBUILD COSTS BY COST ELEMENT  
 ELECTRIC SERVICE CONNECTIONS - EXPENSE  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2018	2019	2020	Gross Spending
1	Contract	–	–	\$149	\$149
2	Labor External	–	–	–	–
3	Labor Internal	\$(13)	–	8	(5)
4	Materials & Other	(31)	–	(1)	(32)
5	Total	\$(44)	–	\$156	\$112

5 **b. Gas Main Construction**

6 After the Camp Fire, PG&E evaluated all gas main lines throughout  
 7 Butte County to identify any that needed to be replaced. From  
 8 2018-2023, PG&E completed 12.8 miles of Gas Main construction  
 9 (Table 3-8). PG&E incurred \$9.5 million in expense (Table 3-6) and  
 10 \$47.4 million in capital (Table 3-7) related to Gas Main Construction.  
 11 Tables 3-15 and 3-16 below shows the total incurred costs broken down  
 12 by cost element group. PG&E describes the work activities associated  
 13 with Gas Main Construction in Section D.5 below.

**TABLE 3-15  
BUTTE COMMUNITY REBUILD COST BY COST ELEMENT – GROUP  
GAS MAIN CONSTRUCTION – CAPITAL  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2018	2019	2020	2021	2022	2023	Gross Spending
1	Contract	–	–	\$1,263	\$4,413	\$7,468	\$6,725	\$19,869
2	Labor External	\$1	2	–	–	27	45	75
3	Labor Internal	–	–	33	558	1,168	1,020	2,779
4	Materials & Other	–	(3)	1,961	451	1,079	3,320	6,808
5	Total	\$1	\$(2)	\$3,257	\$5,422	\$9,742	\$11,110	\$29,530

**TABLE 3-16  
BUTTE COMMUNITY REBUILD COST BY COST ELEMENT GROUP  
GAS MAIN CONSTRUCTION – EXPENSE  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	Gross Spending
1	Contract	\$3,366	\$(3,486)	–	–	\$(120)
2	Labor External	7	(7)	–	–	–
3	Labor Internal	983	(630)	–	–	353
4	Materials & Other	1,198	(121)	–	–	1,077
5	Total	\$5,554	\$(4,244)	–	–	\$1,310

1                    **c. Gas Services**

2                    The Gas Services workstream involves restoring gas services for  
3                    PG&E customers who were impacted by the Camp Fire before the  
4                    customer was ready to move back into their home. Gas services in the  
5                    underground footprint in Paradise and surrounding areas were  
6                    constructed underground and share a trench with the electric service if  
7                    the customer also received power from PG&E. If a customer did not  
8                    have gas service prior to the Camp Fire, they had to apply for service  
9                    under the Rule 16 Tariff. The expenditures in this workstream cover  
10                   both temporary and permanent service installations. In locations where  
11                   customers had gas service prior to the Camp Fire, PG&E rebuilt the gas  
12                   service when the customers applied for service after they rebuilt their  
13                   homes.

1 From 2018-2023, PG&E restored gas service to 1,413 structures  
 2 (Table 3-8). PG&E incurred \$10.7 million in expense (Table 3-6) and  
 3 \$68.1 million in capital (Table 3-7) related to Gas Services. Tables 3-17  
 4 and 3-18 below show the total incurred costs broken down by cost  
 5 element group. PG&E describes the work activities associated with Gas  
 6 Services in Section D.5 below.

**TABLE 3-17  
 BUTTE REBUILD COSTS BY COST ELEMENT GROUP  
 GAS SERVICES – CAPITAL  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$160	\$5,847	\$11,004	\$13,753	\$11,935	\$42,699
2	Labor External	1	3	6	74	148	231
3	Labor Internal	268	1,286	1,870	2,617	3,058	9,099
4	Materials & Other	327	1,750	3,150	4,981	6,164	16,372
5	Total	\$755	\$8,886	\$16,030	\$21,425	\$21,305	\$68,401

**TABLE 3-18  
 BUTTE REBUILD COSTS BY COST ELEMENT GROUP  
 GAS SERVICES – EXPENSE  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$29	\$7,780	\$2,192	\$(604)	\$59	\$9,456
2	Labor External	–	–	–	–	–	–
3	Labor Internal	37	101	219	74	41	472
4	Materials & Other	6	573	286	(112)	4	757
5	Total	\$72	\$8,454	\$2,697	\$(642)	\$104	\$10,685

7 **d. Electric Mobile Home Parks**

8 The Electric Mobile Home Parks workstream restored electric  
 9 service to mobile homes in Butte County that were impacted by the  
 10 Camp Fire. PG&E rebuilt Mobile Home Parks electric and gas  
 11 distribution systems within the rebuild footprint. From 2019-2023,  
 12 electric services were provided to 753 mobile home spaces that were  
 13 rebuilt (Table 3-8). In certain cases, PG&E did not construct meter

1 connection from the electric pedestal or gas meter to the mobile home  
 2 because the mobile home location was vacant, and there was no mobile  
 3 home to receive the connection.<sup>29</sup> PG&E is also requesting recovery  
 4 for those costs incurred to restore and provide additional service  
 5 connections to other non-mobile home infrastructure within the mobile  
 6 home park, such as common-use buildings.<sup>30</sup>

7 From 2019-2023, PG&E incurred \$0 expense and \$20.5 million in  
 8 capital (Table 3-7) related to Electric Mobile Home Parks. Table 3-19  
 9 below shows the total incurred costs broken down by cost element  
 10 group. PG&E describes the work activities associated with Electric  
 11 Mobile Home Parks in Section D.5 below.

**TABLE 3-19  
 BUTTE REBUILD COSTS BY COST ELEMENT GROUP  
 ELECTRIC HOME MOBILE PARKS - CAPITAL  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$1,097	\$5,973	\$6,040	\$2,199	\$977	\$16,286
2	Labor External	75	116	156	162	55	564
3	Labor Internal	259	313	228	83	70	953
4	Materials & Other	188	1,142	887	418	61	2,696
5	Total	\$1,619	\$7,544	\$7,312	\$2,862	\$1,163	\$20,500

**e. Gas Mobile Home Parks**

12 From 2019-2023, PG&E rebuilt gas services to 753 gas mobile  
 13 home spaces (Table 3-8). PG&E is also requesting recovery for those  
 14 costs incurred to restore and add additional service connections to other  
 15

<sup>29</sup> A.21-06-021, Exhibit (PG&E-4), p. 23-24 to p. 23-25, available at:  
<https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2106021/4583/454865292.pdf>  
 (accessed Nov. 15, 2024).

<sup>30</sup> In contrast to the Mobile Home Park Utility Conversion Rule 28 Program, this scope of work excludes the beyond the meter connection from the electric pedestal to the mobile home. Costs incurred for work whose scope exceeds the Mobile Home Park Utility Conversion Rule 28 Program are not included in this application.

1 non-mobile home infrastructure within the mobile home park, such as  
 2 common-use buildings.<sup>31</sup>

3 PG&E incurred \$0 expense and \$12.2 million in capital costs  
 4 (Table 3-7) related to Gas Mobile Home Parks. Table 3-20 below shows  
 5 the total incurred costs broken down by cost element group. PG&E  
 6 describes the work activities associated with Gas Mobile Home Parks in  
 7 Section D.5 below.

**TABLE 3-20  
 BUTTE REBUILD COSTS BY COST ELEMENT GROUP  
 GAS HOME MOBILE PARKS – CAPITAL  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$823	\$4,222	\$1,727	\$998	\$596	\$8,366
2	Labor External	81	74	69	82	38	345
3	Labor Internal	143	206	100	91	95	636
4	Materials & Other	99	1,260	894	418	174	2,845
5	Total	\$1,146	\$5,762	\$2,791	\$1,589	\$903	\$12,192

8 **f. Butte Community Rebuild Program Management Office**

9 Managing the Butte Community Rebuild Program is complex and  
 10 requires a wide range of internal teams and subject matter experts—  
 11 including experts in planning, operations, emergency response, external  
 12 engagement, and communications. The Butte Community Rebuild  
 13 Program Management Office (PMO) is responsible for coordinating the  
 14 diverse activities that these teams were responsible for during the  
 15 restoration and rebuild efforts. The PMO monitors, governs, and  
 16 supports the various workstreams and maintains accurate and timely  
 17 progress data.

18 PG&E incurred \$13.1 million in expense (Table 3-6) and \$2.9 million  
 19 in capital (Table 3-7) related to Butte Community Rebuild PMO. Tables  
 20 3-21 and 3-22 below show the total incurred costs broken down by cost

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<sup>31</sup> In contrast to the Mobile Home Park Utility Conversion Rule 28 Program, this scope of work excludes the beyond the meter connection from the electric pedestal to the mobile home. Costs incurred for work whose scope exceeds the Mobile Home Park Utility Conversion Rule 28 Program are not included in this application.

1 element group. PG&E describes the work activities associated with the  
 2 Community Rebuild PMO in Section D.5 below.

**TABLE 3-21  
 BUTTE REBUILD COSTS BY COST ELEMENT GROUP  
 PROGRAM MANAGEMENT OFFICE – CAPITAL  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2020	2021	Gross Spending
1	Contract	\$3,342	\$(2,187)	\$1,154
2	Labor External	–	–	–
3	Labor Internal	76	(94)	(18)
4	Materials & Other	1,865	(28)	1,836
5	Total	\$5,283	\$(2,310)	\$2,973

**TABLE 3-22  
 BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
 PROGRAM MANAGEMENT OFFICE – EXPENSE  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	2023	Gross Spending
1	Contract	\$578	\$2,802	\$(2,027)	\$4,031	\$(1,601)	\$(4,279)
2	Labor External	810	2,437	4,568	3,890	2,333	14,308
3	Labor Internal	495	631	214	(78)	45	1,306
4	Materials & Other	1,020	272	461	15	269	2,037
5	Total	\$2,904	\$6,142	\$3,215	\$(204)	\$1,045	\$13,102

3 **g. Customer Care**

4 The Town of Paradise and Butte County inspected buildings and  
 5 identified (through a process called “green tagging”) structures that  
 6 could accept electricity and natural gas service, which is a requirement  
 7 before PG&E can restore service. Before gas mains were restored,  
 8 PG&E provided portable natural gas to critical infrastructure including  
 9 the Paradise police and fire stations, town hall, and the Adventist Health  
 10 center.

11 PG&E began restoring gas service to customers beginning in  
 12 mid-December 2018, as work on each of the 16 sections of the area’s  
 13 gas system was completed. As part of its commitment to help its  
 14 customers and communities with the recovery and rebuilding process,

1 PG&E restored natural gas services safely and asked customers to call  
 2 PG&E for assistance with relighting their pilot lights.

3 PG&E incurred \$0.08 million in expense (Table 3-6) and  
 4 \$0.89 million in capital (Table 3-7) related to Customer Care.  
 5 Tables 3-23 and 3-24 below show the total incurred costs broken down  
 6 by cost element group. PG&E describes the work activities associated  
 7 with Customer Care in Section D.5 below.

**TABLE 3-23  
 BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
 CUSTOMER CARE – CAPITAL  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2022	2023	Gross Spending
1	Contract	–	–	–	–	–
2	Labor External	–	–	–	–	–
3	Labor Internal	–	–	–	–	–
4	Materials & Other	\$74	\$73	–	\$747	\$893
5	Total	\$74	\$73	\$0	\$747	\$893

**TABLE 3-24  
 BUTTE COMMUNITY REBUILD COSTS BY COST ELEMENT GROUP  
 CUSTOMER CARE – EXPENSE  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2019	2020	2021	2022	Gross Spending
1	Contract	–	–	–	–	–
2	Labor External	–	–	–	–	–
3	Labor Internal	\$27	\$36	\$4	–	\$68
4	Materials & Other	10	2	–	–	12
5	Total	\$37	\$38	\$4	–	\$80

8 **h. Telecom Pole Removal**

9 Telecommunication companies frequently place equipment on  
 10 PG&E’s utility poles under shared-use agreements with PG&E.  
 11 Following the Camp Fire, PG&E and AT&T entered into a clean-up effort  
 12 agreement that provided in part:

1 PG&E shall be responsible for the ‘wreck out’ of existing aerial plant  
2 that is designated to be removed, including removal of AT&T’s  
3 facilities and associated poles.

4 PG&E incurred \$0.2 million in expense (Table 3-6) and \$0 in capital  
5 costs related to Telecom Pole Removal. Table 3-25 shows the total  
6 incurred costs broken down by cost element group. PG&E describes  
7 the work activities associated with Telecom Pole Removal in  
8 Section D.5 below.

**TABLE 3-25**  
**COSTS BY COST ELEMENT BREAKDOWN GROUP**  
**TELECOM POLE REMOVAL – EXPENSE**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Group	2022	2023	Gross Spending
1	Contract	\$132	\$16	\$148
2	Labor External	42	3	45
3	Labor Internal	3	–	3
4	Materials & Other	–	5	5
5	Total	\$177	\$23	\$200

9 **5. Butte Community Rebuild Program – Description of Costs and**  
10 **Workstream Activities**

11 The Butte Community Rebuild Program consisted of several  
12 workstreams (discussed above) dedicated to permanently re-establishing  
13 services in the areas impacted by the Camp Fire. For these workstreams,  
14 PG&E incurred costs for contract work, internal and external labor, materials  
15 and other activities. The majority of costs incurred were contract costs.  
16 PG&E describes this work in more detail below.

17 **a. Description of Costs**

18 **1) Internal and External Labor, Materials, and Other**  
19 **Costs**

20 Internal labor includes costs for PG&E employees, such as  
21 administrative employees, construction workers, electricians,  
22 estimators, engineers, environmental specialists, gas specialists,  
23 inspectors, and land surveyors. Internal labor represents

1 approximately 9 percent of incurred expense amounts and  
2 approximately 11 percent of capital costs.

3 External labor generally includes consulting services  
4 (e.g., environmental consultants, engineering consultants, etc.) and  
5 staff augmentation services. External labor represents  
6 approximately 4 percent of incurred expense amounts and  
7 approximately 1 percent of capital costs.

8 Materials costs include items such as conductors, cable, wire  
9 connectors, electric equipment components, fuels, lubricants, and  
10 oils. Materials also include material burden, freight costs and  
11 working stock. Materials represent approximately 2 percent of  
12 incurred expense amounts and approximately 12 percent of capital  
13 costs.

14 The costs recorded for “other” activities include items such as  
15 PG&E benefits and overhead costs (e.g. building services overhead,  
16 materials overhead, payroll taxes overhead, etc.) fleet costs, land  
17 acquisition services, environmental permits and fees, and Allowance  
18 for Funds Used during Construction (AFUDC). Other costs  
19 represent approximately 5 percent of incurred expense amounts and  
20 approximately 7 percent of capital costs.

## 21 **2) Contracting Costs**

22 Contract costs are made up of the activities and costs to:  
23 (1) remove dead trees and other debris in order to maintain safe  
24 construction sites for crews; (2) install new underground gas and  
25 electric lines; and (3) re-establish gas and electric services to PG&E  
26 customers in the communities.

27 PG&E incurred approximately \$345.4 million expense and  
28 \$613.8 million capital on contract spending. This represents  
29 approximately 81 percent of the total gross expense costs incurred  
30 and approximately 69 percent of the total gross capital costs  
31 incurred for the Butte Community Rebuild Program.

**TABLE 3-26**  
**BUTTE REBUILD COSTS BY COST ELEMENT GROUP**  
**CAPITAL**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Element	2018	2019	2020	2021	2022	2023	Total	Percentage
1	Contract	–	\$42,018	\$109,157	\$121,556	\$164,552	\$176,500	\$613,783	69%
2	Labor External	\$1	310	273	603	4,515	6,185	11,887	1%
3	Labor Internal	–	18,391	19,273	16,934	21,297	23,431	99,326	11%
4	Materials	–	9,410	12,044	22,087	34,482	26,331	104,354	12%
5	Other	–	11,566	17,736	13,091	12,833	11,541	66,797	7%
6	Total	\$1	\$81,695	\$158,483	\$174,271	\$237,679	\$243,988	\$896,116	100%

**TABLE 3-27**  
**BUTTE REBUILD COSTS BY COST ELEMENT GROUP EXPENSE**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Element	2018	2019	2020	2021	2022	2023	Total	Percentage
1	Contract	\$107,393	\$209,951	\$28,519	\$3,188	\$(2,435)	\$(1,180)	\$345,436	81%
2	Labor External	286	2,515	2,708	4,589	3,933	3,089	17,121	4%
3	Labor Internal	22,895	12,774	1,715	872	75	86	38,417	9%
4	Materials	2,192	2,708	917	500	(180)	313	6,450	2%
5	Other	11,775	12,362	530	392	(3,874)	(64)	21,121	5%
6	Total	\$144,541	\$240,310	\$34,389	\$9,541	\$(2,481)	\$2,245	\$428,545	100%

1 Below PG&E provides examples of key activities associated with the  
2 various Butte Community Rebuild Program workstreams.

3 **b. Description of Activities**

4 **1) Electric Construction Work Activities**

5 Electric Underground Mainline Construction

6 Electric construction work includes activities such as:

7 (1) excavating/backfilling and placing new conduit, road restoration,  
8 splicing and electrical terminations; (2) removing existing overhead  
9 wires, equipment and poles; (3) installing line extensions from  
10 existing distribution service lines to new residential and commercial  
11 facilities; (4) removing overhead primary lines; (5) installing  
12 underground primary cables; installing transformers, switches, and  
13 other electric equipment; (6) replacing secondary conductors;

1 (7) installing fuses; and (8) converting existing electric panels from  
2 overhead to underground feed.

### 3 Electric Overhead Mainline Construction

4 Electric construction work includes activities such as:  
5 (1) replacing and/or adding overhead conductor and underground  
6 cables; (2) upgrading circuits to carry the load/voltage required to  
7 meet new demand; (3) replacing and/or installing poles;  
8 (4) connecting upgraded electrical circuits to the existing electrical  
9 distribution system; and (5) disposing of equipment and materials  
10 taken out of service.

### 11 Electric Service Connections

12 Work associated with Electric Service Connections includes  
13 both civil and electric work.

14 Civil work includes: (1) excavating/backfilling and placing new  
15 conduit and equipment enclosures for the installation of temporary  
16 electric services; and (2) installing enclosures.

17 Electric work includes activities such as: (1) converting  
18 temporary electric panels from overhead to underground;  
19 (2) installing new conductor; (3) removing overhead service  
20 conductor; (4) installing wood poles or relocating existing poles;  
21 (5) installing line extensions from existing PG&E distribution service  
22 lines to new existing residential and commercial facilities;  
23 (6) removing overhead primary conductor; (7) installing underground  
24 primary cable; (8) installing transformers, switches and other electric  
25 equipment; and (9) disposing of equipment and materials taken out  
26 of service.

## 27 **2) Gas Construction Work Activities**

### 28 Plastic Pipeline Gas Underground and Gas Main Construction

29 Both the Plastic Pipeline Gas Underground Construction and  
30 Gas Main Construction work includes activities such as:  
31 (1) excavation, backfill and placement of new gas pipe;  
32 (2) pavement and landscape restoration including repairs of roads,  
33 sidewalks, curbs, gutters, and handicap ramps; (3) coordinating with  
34 customers, counties and other agencies; (4) installing service

1 replacements, and gas stubs; (5) deactivating existing high-pressure  
2 gas main; and (6) pavement and landscape restoration including  
3 road repair, sidewalks, curbs, gutters and Americans and Disabilities  
4 Act (ADA) compliant ramps.

#### 5 Gas Services

6 Gas construction work includes activities such as:

- 7 (1) excavation, backfill and placement of new gas pipe;
- 8 (2) pavement and landscape restoration including repairs of roads,  
9 sidewalks, curbs, gutters, and ADA compliant ramps; and
- 10 (3) coordinating with customers, counties and other agencies.

### 11 **3) Electric and Gas Mobile Home Park Activities**

12 Work associated with the Electric and Gas Mobile Home Parks  
13 workstream involves converting master-metered mobile home parks  
14 in Butte County impacted by the Camp Fire to direct service for each  
15 mobile home unit. The activities in this workstream include  
16 performing and completing the ground investigation, construction,  
17 testing, commission, and closeout of a new gas and electric  
18 distribution system at an individual mobile home park.

19 The construction work associated with both electric and gas  
20 work include activities such as: (1) planning with mobile home park  
21 owners to determine meter locations at permitted spaces, obtaining  
22 approvals for equipment replacement; (2) developing gas and  
23 electric drawings, designing and installing gas and electric service  
24 for each previously served space; (3) collaborating with the  
25 contractor to source and secure required materials and equipment;  
26 (4) performing all gas tie-ins to existing PG&E facilities including  
27 stopping the flow of gas on a hot main; (5) installation of gauges,  
28 fittings, and bypasses; (6) joining the newly installed gas main with  
29 the existing gas main; (7) deactivation of main to facilitate a main  
30 tie-in, coating and wrapping; (8) ensuring operational status of new  
31 main, electric energization, testing and inspections; and  
32 (9) providing backfill material, steel-plating, traffic safety, traffic  
33 control, paving material, and concrete.



1 cutting, chipping, hauling and other process of wood and logs  
2 generated from vegetation, fire mitigation and restoration  
3 operations.

4 Butte Community Rebuild Program Management Organization  
5 Activities

6 The majority of the PMO costs incurred were expense amounts  
7 for contract labor who staffed the PMO. The contracted program  
8 management staff provided coordination and implementation of the  
9 Butte Community Rebuild Program from program planning through  
10 closeout which included program and project oversight, reporting,  
11 planning and delivery. The PMO was responsible for governance  
12 and reporting, cost management, schedule management, risk  
13 management and contract management. External labor staffing the  
14 PMO included program and project managers, project engineers,  
15 schedulers, project controls analysts, document management  
16 professionals, and construction managers. The PMO developed  
17 procedures, processes, reporting methodology, project delivery  
18 systems, and schedule templates in support of the Butte Community  
19 Rebuild Program.

20 Customer Care Activities

21 PG&E incurred Customer Care costs for purchasing the  
22 replacement electric and gas meters and modules.

23 **E. Accounting Adjustments**

24 As shown in the tables and figures below, the adjustments to recorded costs  
25 described below have been excluded from the costs presented in this chapter of  
26 testimony. The adjustments include four categories:

- 27 1) Wildfire OII Disallowance;  
28 2) AB1054 Securitization (electric capital expenditures only);  
29 3) Insurance proceeds; and  
30 4) Ernst & Young Recommended Adjustments.

**TABLE 3-28**  
**BUTTE COMMUNITY REBUILD RECORDED COSTS 2018-2023 – EXPENSE**  
**(THOUSANDS OF DOLLARS)**

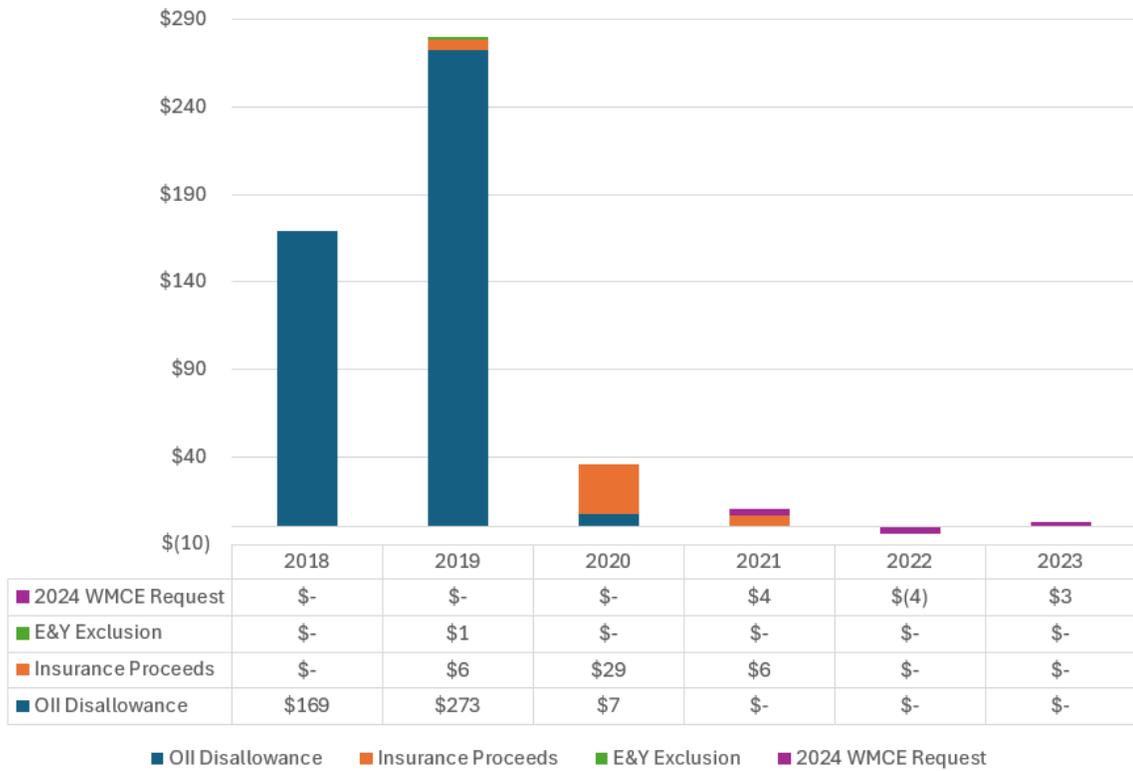
Line No.	Activity	Electric Distribution	Gas Distribution	Customer Care	Total
1	Adjusted Rebuild Cost <sup>(a)</sup>	\$413,386	\$14,287	\$80	\$427,753
2	OII Disallowance – Rebuild	(383,096)	(–)	(37)	(383,133)
3	Insurance Proceeds – Rebuild	(15,360)	(25,861)	(–)	(41,221)
4	EY Exclusions	(1,313)	(6)	(–)	(1,319)
5	Total Costs After Adjustments	\$13,617	(\$11,580)	\$43	\$2,080

(a) The Adjusted Rebuild Costs represent the total costs for rebuild minus the adjustment for the OII disallowance for restoration work that was applied to the rebuild amount.

OII Disallowance for Restoration (\$65,470) – Restoration Costs (\$64,678) = \$792 OII restoration disallowance overage applied to rebuild costs. See Table 3-4, lines 2 and 3.

Therefore, Rebuild Cost (\$428,545) – OII restoration disallowance overage (\$792) = \$427,753. Rebuild Costs are shown on Table 3-4, line 1.

**FIGURE 3-6  
NET COSTS INCURRED AFTER ACCOUNTING ADJUSTMENTS – EXPENSE  
(MILLIONS OF DOLLARS)**



Note: No incurred costs remain in 2018-2020 after applying OII Disallowance and insurance proceeds.

**TABLE 3-29  
BUTTE COMMUNITY REBUILD RECORDED COSTS 2018-2023 – CAPITAL  
(THOUSANDS OF DOLLARS)**

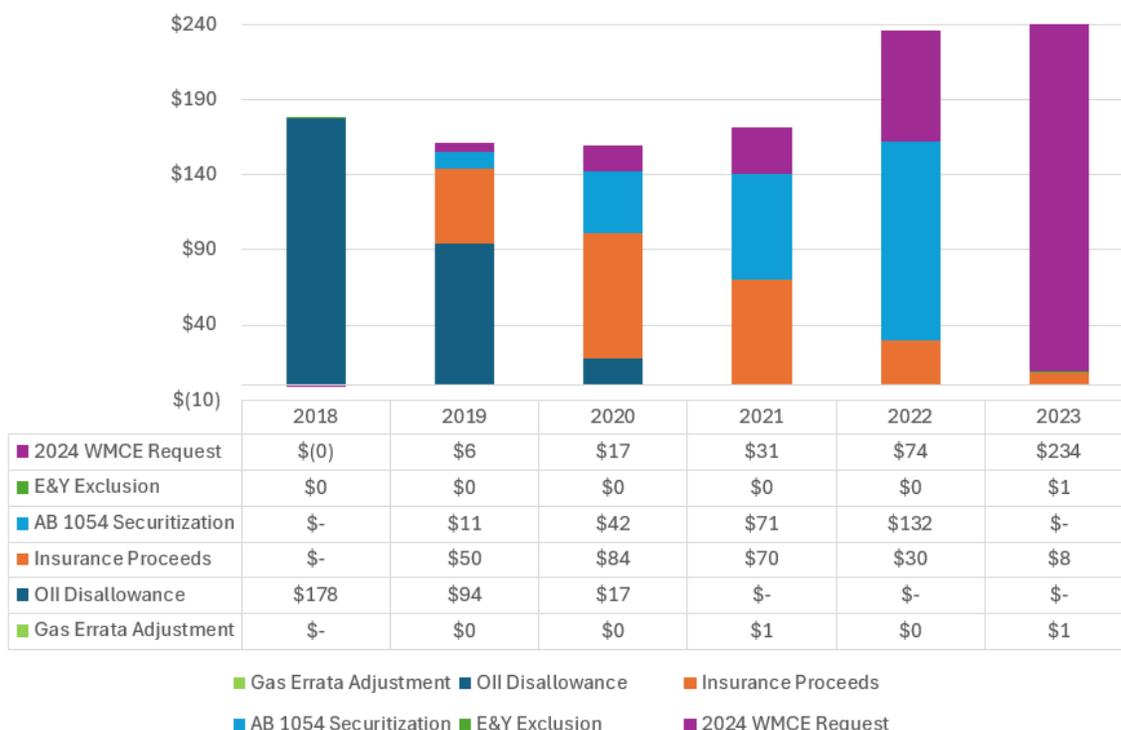
Line No.	Activity	Electric Distribution	Gas Distribution	Customer Care	Total
1	Adjusted Rebuild Cost <sup>(a)</sup>	\$677,978	\$212,596	\$893	\$891,466
2	Oil Disallowance – Rebuild	(30,678)	(0)	0	(30,678)
3	Insurance Proceeds	(176,653)	(64,594)	0	(241,246)
4	AB1054 Securitization	(255,028)	(0)	–	(255,028)
5	EY Exclusions	(1,070)	(334)	–	(1,405)
6	Gas Errata Adjustment	–	(1,652)	–	(1,652)
7	Total Costs After Adjustments	\$214,548	\$146,016	\$893	\$361,457

(a) The Adjusted Rebuild Costs represent the total costs for rebuild minus the adjustment for the Oil disallowance for restoration work that was applied to the rebuild amount.

Oil Disallowance for Restoration (\$258,756) – Restoration Costs (\$254,103) = \$4,653 Oil restoration disallowance overage applied to rebuild costs. See Table 3-5, lines 2 and 3.

Therefore, Rebuild Cost (\$896,321) – Oil restoration disallowance overage (\$4,653) = \$891,668. Total Rebuild Cost shown on Table 3-5, line 1.

**FIGURE 3-7  
NET COSTS INCURRED AFTER ACCOUNTING ADJUSTMENTS – CAPITAL  
(MILLIONS OF DOLLARS)**



Note: No incurred cost remain in 2018 after applying Oil Disallowance and insurance proceeds.

1 PG&E tracks program and project costs through work orders, which  
2 ultimately are captured within the cost recovery account, in this case CEMA.  
3 Accounting adjustments are not recorded to the program and project costs, so  
4 that PG&E can correctly preserve the tracking of the work performed within each  
5 work order. Rather, the adjustments are layered on top of the work order activity  
6 to show the net request, as shown above.

## 7 **1. Cost Disallowance Under the Wildfire OII Decision**

### 8 **a. Background**

9 On June 27, 2019, the CPUC commenced Wildfire OII 19-06-015 to  
10 determine whether PG&E:

11 ...violated any provision(s) of the California Public Utilities Code,  
12 Commission General Orders or decisions, or other applicable rules  
13 or requirements pertaining to the maintenance and operation of its  
14 electric facilities that were involved in igniting fires in its service  
15 territory in 2017.

16 On December 5, 2019, the Assigned Commissioner amended the  
17 scope of issues (Second Amended Scoping Memo) to include the  
18 2018 Camp Fire.

19 On December 17, 2019, PG&E, Safety and Enforcement Division,  
20 Office of the Safety Advocate, and Coalition of California Utility  
21 Employees (collectively, Settling Parties) jointly submitted a proposed  
22 Settlement Agreement (SA) to the CPUC, in connection with the Wildfire  
23 OII. In Decision (D.) 20-05-019, the CPUC approved the SA with certain  
24 modifications.<sup>32</sup> Under the SA, PG&E agreed to a total disallowance of  
25 \$1,625 million for certain expenditures including Butte and other wildfire  
26 mitigation work.<sup>33</sup> The disallowances related to Butte of \$738 million  
27 are as follows:<sup>34</sup>

- 28 • 2018 Camp Fire CEMA Expense (Table 3-30, line 1);
- 29 • 2018 Camp Fire CEMA Capital for Restoration (Table 3-30, line 3);
- 30 and

---

**32** D.20-05-019, pp. 33-34.

**33** D.20-05-019, pp. 36-37 and Appendix A.

**34** The Camp Fire expense and capital work are the activities described in Section D above.

- 2018 Camp CEMA Capital for Temporary Facilities (Table 3-30, line 4).

**b. Application to Costs**

PG&E has applied the Wildfire OII disallowances to the above categories of costs (2018 Camp Fire CEMA Expense and Capital and 2018 Camp CEMA Capital for Temporary Facilities) included in the gross costs of \$1,642 million<sup>35</sup> in this application, as required by the SA. Where PG&E incurred less costs than estimated for a particular category of disallowances, those are applied to Transmission Safety Repairs so that PG&E does not recover the full amount disallowed in the decision.<sup>36</sup>

**TABLE 3-30  
OII DISALLOWANCES  
(THOUSANDS OF DOLLARS)**

Line No.		Restoration	Rebuild	Total
1	2018 Camp Fire CEMA Expense	\$65,470	\$383,096	\$448,566
2	Total Expense	65,470	383,096	448,566
3	2018 Camp Fire CEMA Capital for Restoration	258,756		258,756
4	2018 Camp Fire CEMA Capital for Temporary Facilities		30,678	30,678
5	Total Capital	258,756	30,678	289,434
6	Total	\$324,226	\$413,774	\$738,000

The total Wildfire OII disallowances exceeds restoration costs by \$0.8 million and \$4.7 million for expense and capital, respectively. As such, the “Adjusted Rebuild Cost” as shown in Line 1 on Tables 3-28 and 3-29 above has been reduced by the additional disallowances.

<sup>35</sup> Total gross expense costs incurred are: \$428,545 + \$64,678 = \$493,223 as shown in Table 3-4, line 1 and line 2. Total gross capital costs incurred are: \$896,134 + \$254,103 = \$1,150,237 as shown in Table 3-5 line 1 and line 2. Total gross costs are: \$493 million expense + \$1,150 capital = \$1,643 million.

<sup>36</sup> D.20-05-019, Appendix A-3 (“To the extent the recorded costs for each account apart from Transmission Safety Repairs total an amount that is different from \$1,420,000,000, then the amount for which PG&E shall not seek rate recovery for Transmission Safety Repairs will be adjusted so that the total amount for which PG&E shall not seek rate recovery equals \$1,625,000,000.”). D.20-05-019, Appendix A-3.

1 **2. Assembly Bill 1054 Securitization**

2 **a. Background**

3 California Assembly Bill 1054 (AB 1054), which was signed into law  
 4 on July 12, 2019, includes a provision requiring each large electrical  
 5 corporation to exclude its share of the first \$5 billion in wildfire risk  
 6 mitigation capital expenditures from its equity rate base (prohibiting  
 7 shareholders from earning common equity returns on those  
 8 expenditures), and authorizes such electrical corporations the option to  
 9 finance such expenditures and the related debt financing costs through  
 10 a financing order pursuant to Section 850.1. PG&E submitted three  
 11 applications requesting authority to issue Wildfire Hardening Recovery  
 12 Bonds under Section 850.1 which were approved and resulted in three  
 13 separate bond transactions.<sup>37</sup>

**TABLE 3-31  
 AB1054 SECURITIZATION TRANSACTIONS**

Line	Transaction	Amount Securitized (Thousands of Dollars)	Securitized Butte Rebuild (Thousands of Dollars)	Capital Expenditure Source	CPUC Decision	Issuance Advice Letter	Issuance Advice Letter Date
1	AB1054 I	\$850,048	\$49,181	2020 GRC WMBA	D.21-06-030	6390-E	11/05/2021
2	AB1054 II	975,000	172,770	2020 GRC WMBA 2020 GRC WMBA 2020 WMCE WMPMA	D.22-08-004	6769-E	11/22/2022
3	AB 1054 III	1,384,952	33,076	2023 GRC WMBA <sup>(a)</sup>	D.24-02-011	7336-E	07/25/2024
4	Total	\$3,210,000	\$255,028				

(a) 2023 GRC WMBA does not contain Community Butte Rebuild costs.

14 As authorized by D.21-06-030, D.22-08-004, and D.24-02-011,  
 15 PG&E securitized certain capital costs that were previously deemed just  
 16 and reasonable in the 2020 GRC, 2020 Wildfire Mitigation and  
 17 Catastrophic Events (WMCE), and 2023 GRC proceedings. These  
 18 costs included capital expenditures incurred in connection with the Butte

<sup>37</sup> A.21-02-020, A.22-03-010, A.23-08-009 with resulting transactions in Issuance Advice Letters 6390-E, 6769-E, and 7336-E, respectively.

1 Community Rebuild Program. Costs were already approved and  
2 recovery is currently occurring via the Wildfire Hardening Recovery  
3 Bonds as a result of the securitization. PG&E excluded these amounts  
4 from this application and is not seeking recovery of these costs.

5 **b. Application to Costs**

6 As part of the securitization of the approved capital expenditures,  
7 PG&E identified the capital expenditures eligible for securitization  
8 through the work orders associated with wildfire risk mitigation programs  
9 authorized in the aforementioned proceedings. Once the recovery  
10 bonds were issued, identified orders were segregated in PG&E's  
11 accounting system by transferring the associated capital expenditures to  
12 a special purpose entity that is separate from PG&E. Therefore, the  
13 capital expenditures are excluded from the rate base and not sought for  
14 recovery elsewhere. Specifically, \$255.0 million of Community Rebuild  
15 Program capital expenditures were identified and removed from the  
16 recovery request.

17 **3. Ernst & Young Recommended Adjustments**

18 EY's cost analysis identified certain Butte Community Rebuild costs that  
19 they recommended to be removed from PG&E's application. As described  
20 in Chapter 11, EY uses statistical sampling and transaction testing to  
21 analyze the different cost categories within the scope of the CEMA account  
22 and recommended potential exclusions for items such as unsupported costs  
23 or costs that were not CEMA-related. PG&E has accepted EY's  
24 recommendations, and the Butte Community Rebuild costs requested in this  
25 application have been reduced by the amount of \$2.7 million as shown in  
26 Chapter 11, Table 11-4. Please refer to Chapter 11 Accounting of Costs for  
27 a detailed discussion.

28 **4. Insurance Proceeds**

29 **a. Background**

30 To account for insurance proceeds received for activities related to  
31 the Butte Community Rebuild Program, PG&E has reduced the cost  
32 recovery request in this application by \$282.5 million. All proceeds have

1           been received as of the timing of filing this application. No future  
2           proceeds are expected.

3                           **b. Application to Costs**

4           Per the 1987 GRC,<sup>38</sup> insurance proceeds are applied against  
5           incremental expense, then capital expenditures. Given reductions  
6           already applied as part of the Wildfire OII disallowance, PG&E reviewed  
7           the inception to date expenses as of December 2022, noting there was  
8           \$41.2 million of net expenses remaining to apply insurance proceeds  
9           against. As such, \$41.2 million of the insurance proceeds were applied  
10          against expense with the remaining \$241.3 million applied against  
11          capital expenditures. Expense costs that remain in this application  
12          represent expenses incurred after the application of insurance proceeds.

13          For purposes of calculating the revenue requirement for this  
14          application, the insurance proceeds were applied in chronological order  
15          of expenses being incurred.

16                   **F. Conclusion**

17          This chapter describes PG&E's activities and workstreams associated with  
18          the CEMA Community Rebuild Program that occurred between 2018 and 2023.  
19          As discussed in this chapter, PG&E's costs incurred were reasonable and  
20          therefore should be approved in their entirety.

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<sup>38</sup> D.86-12-095, pp. 216-218.

**PACIFIC GAS AND ELECTRIC COMPANY**  
**CHAPTER 3**  
**ATTACHMENT A**  
**ORIGINAL AND UPDATED WORKPAPER 23-13**

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2   **CHAPTER 3**  
3   **ATTACHMENT A**  
4                                   **ORIGINAL AND UPDATED WORKPAPER 23-13**

5           In Pacific Gas and Electric Company’s (PG&E) 2023 General Rate Case (GRC)  
6 Decision, the California Public Utilities Commission (Commission) directed PG&E to  
7 submit a table in its prepared testimony (rather than or in addition to its workpapers)  
8 in PG&E’s next GRC that reflects the same categories of information found in PG&E  
9 Ex-04 at WP Table 23-13 with updates to reflect the next rate case period to  
10 facilitate the Commission reviewing the Community Rebuild Program in its entirety.<sup>1</sup>

11           PG&E is providing Workpaper Exhibit (PG&E-04), Table 23-13 from PG&E’s  
12 2023 GRC which shows PG&E’s recorded (2018-2020) and forecast (2021-2026)  
13 costs for each of the Butte Community Rebuild workstreams. As directed by the  
14 Commission PG&E is also providing the same workpaper that has been updated to  
15 include recorded costs (2018-2023) and forecast costs (2024-2026).

16           Workpaper 23-13 shows the total costs recorded and forecast for rebuild  
17 activities only. Lines 41 and 42 on the updated Workpaper 23-13 shows the  
18 \$428.5 million gross expense rebuild costs (Table 3-4, line 1) and the \$894.5 million  
19 gross capital rebuild costs (Table 3-5, line 1) described in testimony.

20           Note—to make the original workpaper easier to read PG&E has removed the  
21 “Reference” column that referred to other 2023 GRC workpapers. PG&E will provide  
22 the workpaper with the Reference column included upon request.

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<sup>1</sup> D.23-11-069, p. 482.

Workpaper Table 23-13  
Pacific Gas and Electric Company  
Exhibit (PG&E-4), Chapter 23, Community Rebuild Program  
Total Costs by Workstream  
(Thousands of Nominal Dollars)

Line No.	Exhibit (PG&E-4) Electric Operations	MAT/MVC	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	<b>Expense</b>													
2	Electric Service Connections	IFF	(\$44)	\$0	\$156	\$360	\$205	\$215						
3	Construction Site Clearing	IFF	\$123,521	\$231,744	\$23,840	\$8,751	\$11,986	\$10,471						
4	Community Rebuild Program Management Office	IFF	\$0	\$1,549	\$5,198	\$2,960	\$2,947	\$3,095						
5	<b>Total Expense</b>		<b>\$123,477</b>	<b>\$233,292</b>	<b>\$29,194</b>	<b>\$12,071</b>	<b>\$15,138</b>	<b>\$13,781</b>						
6	<b>Capital</b>													
7	Electric Underground Construction Hardening Program	08W	\$0	\$16,818	\$24,774	\$41,534	\$58,172	\$71,245	\$65,922	\$48,830	\$0			
8	Electric Underground Mainline Construction	95F	\$0	\$21,521	\$40,006	\$42,914	\$94,912	\$114,341	\$104,985	\$77,163	\$0			
9	Electric Overhead Mainline Construction	95F	\$0	\$13,441	\$16,958	\$9,300	\$6,256	\$3,055	\$3,279	\$3,642	\$1,672			
10	Electric Service Connections	95F	\$0	\$11,590	\$18,535	\$21,730	\$20,322	\$20,354	\$21,306	\$16,639	\$15,268			
11	Remote Grids	95F	\$0	\$225	(\$225)	\$0	\$0	\$0	\$0	\$0	\$0			
12	Electric Mobile Home Parks	95F	\$0	\$1,619	\$7,544	\$11,069	\$11,679	\$4,731	\$0	\$0	\$0			
13	Community Rebuild Program Management Office	95F	\$0	\$0	\$5,283	\$2,500	\$0	\$0	\$0	\$0	\$0			
14	<b>Total Capital</b>		<b>\$0</b>	<b>\$65,214</b>	<b>\$112,875</b>	<b>\$129,047</b>	<b>\$191,342</b>	<b>\$213,726</b>	<b>\$195,492</b>	<b>\$146,275</b>	<b>\$16,940</b>			
15	<b>Exhibit (PG&amp;E-4) Electric Operations - Total Costs</b>		<b>\$123,477</b>	<b>\$298,507</b>	<b>\$142,069</b>	<b>\$141,118</b>	<b>\$206,480</b>	<b>\$227,507</b>	<b>\$195,492</b>	<b>\$146,275</b>	<b>\$16,940</b>			
16	<b>Exhibit (PG&amp;E-3) Gas Operations</b>													
17	<b>Expense</b>													
18	Gas Main Construction	LX	\$0	\$5,325	(\$4,016)	\$0	\$0	\$0						
19	Gas Services	LX, FILM	\$0	\$71	\$8,454	\$0	\$0	\$0						
20	Community Rebuild Program Management Office	LX	\$0	\$1,355	\$930	\$1,500	\$2,859	\$2,912						
21	<b>Total Expense</b>		<b>\$0</b>	<b>\$6,752</b>	<b>\$5,367</b>	<b>\$1,500</b>	<b>\$2,859</b>	<b>\$2,912</b>						
22	<b>Capital</b>													
23	Aldwi-A Gas Mainline Construction	14D	\$0	\$14,529	\$27,284	\$25,600	\$24,722	\$14,344	\$10,377	\$4,502	\$0			
24	Gas Main Construction	3QA	\$0	\$0	\$2,949	\$0	\$0	\$0	\$0	\$0	\$0			
25	Gas Services	3QA, 50A	\$0	\$756	\$8,883	\$27,294	\$14,773	\$15,043	\$15,868	\$10,515	\$9,727			
26	Gas Mobile Home Parks	3QA, 50B	\$0	\$1,150	\$5,981	\$4,817	\$9,414	\$2,767	\$0	\$0	\$0			
27	<b>Total Capital</b>		<b>\$0</b>	<b>\$16,435</b>	<b>\$45,097</b>	<b>\$57,710</b>	<b>\$48,909</b>	<b>\$32,153</b>	<b>\$26,845</b>	<b>\$15,017</b>	<b>\$9,727</b>			
28	<b>Exhibit (PG&amp;E-3) Gas Operations - Total Costs</b>		<b>\$0</b>	<b>\$23,187</b>	<b>\$50,465</b>	<b>\$59,210</b>	<b>\$51,768</b>	<b>\$35,065</b>	<b>\$26,845</b>	<b>\$15,017</b>	<b>\$9,727</b>			
29	<b>Exhibit (PG&amp;E-6) Customer Care</b>													
30	<b>Capital</b>													
31	Nov 2018 Camp Fire-Electric Meters-CEMA	3M	\$0	\$26	\$6	\$248	\$254	\$0	\$0	\$0	\$0			
32	Nov 2018 Camp Fire-Gas Meters-CEMA	3M	\$0	\$47	\$37	\$254	\$261	\$0	\$0	\$0	\$0			
33	Nov 2018 Camp Fire-Gas Modules-CEMA	3M	\$0	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$0			
34	Butte Wildfire Rebuild - Electric Meters	25	\$0	\$0	\$0	\$0	\$0	\$261	\$267	\$162	\$166			
35	Butte Wildfire Rebuild-Gas Mtrs/Modules	74	\$0	\$0	\$0	\$0	\$0	\$268	\$273	\$166	\$170			
36	<b>Total Capital</b>		<b>\$0</b>	<b>\$74</b>	<b>\$73</b>	<b>\$502</b>	<b>\$515</b>	<b>\$529</b>	<b>\$540</b>	<b>\$328</b>	<b>\$336</b>			
37	<b>Exhibit (PG&amp;E-6) Customer Care - Total Costs</b>		<b>\$0</b>	<b>\$74</b>	<b>\$73</b>	<b>\$502</b>	<b>\$515</b>	<b>\$529</b>	<b>\$540</b>	<b>\$328</b>	<b>\$336</b>			
38	<b>Total Expense (PG&amp;E-3, PG&amp;E-4, PG&amp;E-6)</b>		<b>\$123,477</b>	<b>\$240,045</b>	<b>\$34,562</b>	<b>\$13,571</b>	<b>\$17,997</b>	<b>\$16,693</b>	<b>\$222,876</b>	<b>\$161,620</b>	<b>\$27,002</b>			
39	<b>Total Capital (PG&amp;E-3, PG&amp;E-4, PG&amp;E-6)</b>		<b>\$0</b>	<b>\$81,723</b>	<b>\$158,045</b>	<b>\$187,259</b>	<b>\$240,765</b>	<b>\$246,408</b>	<b>\$222,876</b>	<b>\$161,620</b>	<b>\$27,002</b>			

Updated Workpaper Table 23-13  
 Pacific Gas and Electric Company  
 2024 WMCE - Chapter 3, Butte Community Rebuild  
 Total Costs by Workstream - Updated For Errata  
 (Thousands of Nominal Dollars)

Line No.	Chapter 3 - Electric Operations Expense	MAT/MWC	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Forecast	Forecast	Forecast
			2018	2019	2020	2021	2022	2023	2024	2025	2026				
1		IFF	(\$44)	\$0	\$156	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
2	Electric Service Connections	IFF													
3	Construction Site Clearing	IF#, IFA, IFB, IFF	\$144,585	\$231,744	\$23,844	\$3,624	(\$1,814)	\$1,073							
4	Community Rebuild Program Management Office	IFF	\$0	\$1,549	\$5,212	\$2,571	(\$224)	\$911							
5	Telecom Pole Removal	IFA	\$0	\$0	\$0	\$0	\$177	\$23							
6	<b>Total Expense</b>		<b>\$144,541</b>	<b>\$233,292</b>	<b>\$29,211</b>	<b>\$6,195</b>	<b>(\$1,861)</b>	<b>\$2,007</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
7	<b>Capital</b>														
8	Program	08W	\$0	\$16,816	\$24,634	\$38,816	\$32,486	\$98,563							
9	Electric Underground Mainline Construction	95F	\$0	\$21,486	\$39,939	\$59,713	\$68,981	\$87,739							
10	Electric Overhead Mainline Construction	95F	\$0	\$16,980	\$16,899	\$812	\$211	\$384							
11	Electric Service Connections	95A, 95B, 95F	\$0	\$8,037	\$18,543	\$24,852	\$18,687	\$14,885							
12	Remote Grids	95F	\$0	\$0	\$0	\$0	\$0	\$0							
13	Electric Mobile Home Parks	95F	\$0	\$1,619	\$7,544	\$7,312	\$2,862	\$1,163							
14	Community Rebuild Program Management Office	95F	\$0	\$0	\$5,283	(\$2,310)	\$0	\$0							
15	<b>Total Capital</b>		<b>\$0</b>	<b>\$64,938</b>	<b>\$112,842</b>	<b>\$129,195</b>	<b>\$173,227</b>	<b>\$202,734</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
16	<b>Exhibit (PG&amp;E-4) Electric Operations - Total Costs</b>		<b>\$144,541</b>	<b>\$298,231</b>	<b>\$142,054</b>	<b>\$135,389</b>	<b>\$171,366</b>	<b>\$204,741</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
17	<b>Chapter 3 - Gas Operations Expense</b>														
18	Gas Main Construction	LXA	\$0	\$5,554	(\$4,244)	\$0	\$0	\$0							
19	Gas Services	LXA, FIM	\$0	\$71	\$8,454	\$2,697	(\$642)	\$104							
20	Community Rebuild Program Management Office	LX	\$0	\$1,355	\$930	\$644	\$21	\$134							
21	<b>Total Expense</b>		<b>\$0</b>	<b>\$6,981</b>	<b>\$5,140</b>	<b>\$3,341</b>	<b>(\$621)</b>	<b>\$238</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
22	<b>Capital</b>														
23	Allyl-A Gas Mainline Construction	14D	\$0	\$14,782	\$27,663	\$20,836	\$31,694	\$7,188							
24	Gas Main Construction	3QA, 50A	\$1	(\$2)	\$4,156	\$7,705	\$17,442	\$18,062							
25	Gas Services	3QA, 50B	\$0	\$755	\$7,987	\$13,746	\$13,726	\$14,354							
26	Gas Mobile Home Parks	3QA, 50A	\$0	\$1,146	\$5,762	\$2,791	\$1,589	\$903							
27	<b>Total Capital</b>		<b>\$1</b>	<b>\$16,682</b>	<b>\$45,568</b>	<b>\$45,078</b>	<b>\$64,452</b>	<b>\$40,507</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
28	<b>Exhibit (PG&amp;E-3) Gas Operations - Total Costs</b>		<b>\$1</b>	<b>\$23,663</b>	<b>\$50,707</b>	<b>\$48,419</b>	<b>\$63,831</b>	<b>\$40,745</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
29	<b>Chapter 3 - Customer Care Expense</b>														
30	Customer Care	IG#	\$0	\$37	\$39	\$4	\$0	\$0							
31			\$0	\$37	\$39	\$4	\$0	\$0							
32	<b>Total Expense</b>		<b>\$0</b>	<b>\$37</b>	<b>\$39</b>	<b>\$4</b>	<b>\$0</b>	<b>\$0</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
33	<b>Capital</b>														
34	Nov 2018 Camp Fire-Electric Meters-CEMA	3M	\$0	\$26	\$6	\$0	\$0	\$355							
35	Nov 2018 Camp Fire-Gas Meters-CEMA	3M	\$0	\$47	\$37	\$0	\$0	\$392							
36	Nov 2018 Camp Fire-Gas Modules-CEMA	3M	\$0	\$0	\$30	\$0	\$0	\$0							
37	Butte Wildfire Rebuild - Electric Meters	25	\$0	\$0	\$0	\$0	\$0	\$0							
38	Butte Wildfire Rebuild-Gas Mtrs/Modules	74	\$0	\$0	\$0	\$0	\$0	\$0							
39	<b>Total Capital</b>		<b>\$0</b>	<b>\$74</b>	<b>\$73</b>	<b>\$0</b>	<b>\$0</b>	<b>\$747</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
40	<b>Exhibit (PG&amp;E-6) Customer Care - Total Costs</b>		<b>\$0</b>	<b>\$74</b>	<b>\$73</b>	<b>\$0</b>	<b>\$0</b>	<b>\$747</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
41	<b>Total Expense (PG&amp;E-3, PG&amp;E-4, PG&amp;E-6)</b>		<b>\$144,541</b>	<b>\$240,273</b>	<b>\$34,351</b>	<b>\$9,536</b>	<b>(\$2,482)</b>	<b>\$2,245</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
42	<b>Total Capital (PG&amp;E-3, PG&amp;E-4, PG&amp;E-6)</b>		<b>\$1</b>	<b>\$81,694</b>	<b>\$158,483</b>	<b>\$174,272</b>	<b>\$237,680</b>	<b>\$243,988</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**PACIFIC GAS AND ELECTRIC COMPANY**

**CHAPTER 4**

**GAS: CEMA**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 4  
GAS: CEMA

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1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **CHAPTER 4**  
3 **GAS: CEMA**

4 **A. Introduction**

5 This chapter describes the response of Pacific Gas and Electric Company's  
6 (PG&E) Gas Operations (Gas)<sup>1</sup> to the declared emergency events listed below.<sup>2</sup>

- 7 1) 2017 Nor Cal Fires;  
8 2) 2018 Carr Fire;  
9 3) 2020 Glass Fire;  
10 4) 2022 Humboldt County Earthquake;  
11 5) December – January Winter Storms (2022-2023); and  
12 6) 2023 February – March Storms.

13 This chapter demonstrates the necessity and reasonableness of the steps  
14 Gas took to:

- 15 • Provide standby support to Electric Distribution;  
16 • Eliminate potentially hazardous conditions;  
17 • Communicate with customers;  
18 • Repair or replace damaged gas transmission and distribution (T&D)  
19 facilities; and  
20 • Restore gas service to customers.  
21 • The remainder of this chapter is organized as follows:  
22 • Section B provides a summary of the financial request;  
23 • Section C is a discussion of Gas Catastrophic Event Memorandum Account  
24 (CEMA) Events and explains the costs incurred by Gas in response to these  
25 catastrophic events;  
26 • Section D provides a brief conclusion; and  
27 • Summary of Request.

---

1 Both Gas Distribution and Gas Transmission (GT) incurred costs in response to the various events, included in this Application. These are referred to collectively as "Gas" or together as "Gas T&D."

2 See the Workpapers supporting Chapter 1 for the CEMA Declarations.

1 In response to the six catastrophic events listed above, PG&E recorded Gas  
 2 expenses of \$1.1 million and capital expenditures of \$7.3 million. Further  
 3 information is set forth in the workpapers supporting this chapter.

4 Tables 4-1 and 4-2 summarize PG&E’s total Gas T&D costs for the CEMA  
 5 events by expense and capital, before adjustments.<sup>3</sup> Restoration response  
 6 costs are mainly focused on repairing infrastructure for customers who can  
 7 receive service. The lengthier process of rebuild costs begins later and is mainly  
 8 focused on re-installing infrastructure to support permanent and temporary  
 9 service and to replace destroyed infrastructure.

**TABLE 4-1  
 CEMA EVENTS GAS EXPENSE  
 (THOUSANDS OF DOLLARS)**

Line No.	Event	2023	Total
1	2017 Nor Cal Fires	–	–
2	2018 Carr Fire	–	–
3	2020 Glass Fire	–	–
4	2022 Humboldt County Earthquake	\$157	\$157
5	December – January Winter Storms (2022-2023) <sup>(a)</sup>	368	368
6	2023 February – March Storms <sup>(a)</sup>	587	587
7	Grand Total	\$1,113	\$1,113

(a) Costs from July 1, 2023 to December 31, 2023 are included in this filing.

---

<sup>3</sup> These costs do not include the adjustments made in Chapter 11, “Accounting of Costs.”

**TABLE 4-2  
CEMA EVENTS GAS CAPITAL  
(THOUSANDS OF DOLLARS)**

Line No.	Event	2023	Total
1	2017 Nor Cal Fires	\$103	\$103
2	2018 Carr Fire	6	6
3	2020 Glass Fire	3	3
4	2022 Humboldt County Earthquake	5,513	5,513
5	December – January Winter Storms (2022-2023) <sup>(a)</sup>	179	179
6	2023 February – March Storms <sup>(a)</sup>	1,544	1,544
7	Grand Total	\$7,349	7,349

(a) Costs from July 1, 2023 to December 31, 2023 are included in this filing.

**B. Discussion of CEMA Events**

The following section describes the impacts to PG&E’s gas facilities and the activities in response to the CEMA events, including standby service that gas personnel provided to support electric service restoration.

For all emergency events, PG&E gas follows standard Emergency Response processes. This includes using the Gas Emergency Response Plan, activating emergency centers as needed, and coordinating response and restoration efforts with other functional areas and external agencies as needed. For more information on Gas emergency response processes, see Attachment A supporting this chapter.

**1. 2017 Nor Cal Fires**

**a. Description of Event**

The Nor Cal Fires began in October 2017 in Napa and Sonoma Counties. Emergency dispatchers sent fire crews to reports of downed power lines and damaged transformers.

As the California Department of Forestry and Fire Protection (CAL FIRE) and local fire departments battled the fires, strong winds from the northeast pushed the front of the fire more than 12 miles in its first three hours. Local fire officials requested evacuations of Calistoga and surrounding areas. By the time of its containment, the fires had

1           been estimated to have burned over 37,000 acres in both Napa and  
2           Sonoma counties and destroyed more than 5,600 structures.

3           **b. PG&E’s Response Activities**

4           In 2023, PG&E incurred \$0.103 million in capital related to the 2017  
5           Nor Cal Fires, specifically the Nuns Fire, Atlas Fire, and Redwood Fire,  
6           broken down in the tables below.<sup>4</sup> The 2023 costs incurred for this  
7           event related to full gas service replacements and partial replacements  
8           at affected homes during rebuild efforts.

**TABLE 4-3**  
**2017 NOR CAL FIRES COST ELEMENT BREAKDOWN OF**  
**2023 CAPITAL COSTS**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$58
2	Labor	29
3	Materials	13
4	Other	3
5	Total	\$103

- 9           • The majority of Gas costs in the “contract” category relate to traffic  
10          control, wet/dry spoils, equipment, paving and grading services;
- 11          • The majority of Gas costs in the “labor” category relate to Gas  
12          Construction, Engineering and mapping services and overtime;
- 13          • The majority of Gas costs in the “materials” category relate to  
14          supplies working stock and other construction materials; and
- 15          • The majority of Gas costs in the “other” category relate to minor  
16          materials and Payroll tax burdens.

17           **2. 2018 Carr Fire**

18           **a. Description of Event**

19           The Carr Fire began on July 23, 2018. CAL FIRE responded to a  
20           mechanical failure of a vehicle that had ignited vegetation in the vicinity  
21           of Highway 299 and Carr Powerhouse Road, in Whiskeytown,

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<sup>4</sup> See workpapers supporting this chapter for an additional breakdown of costs.

1 Shasta County. As CAL FIRE battled the blaze, the wildfire grew to  
 2 20,000 acres during the overnight hours from July 25 to July 26, forcing  
 3 the evacuations of Old Shasta, the town of Keswick, and all surrounding  
 4 areas, and the closure of Highway 299 in Redding. The Carr Fire  
 5 ultimately burned 229,651 acres, destroyed 1,604 structures, and  
 6 damaged an additional 277 structures.

7 **b. PG&E’s Response Activities**

8 PG&E crews confirmed widespread damage in the early stages of  
 9 the Carr Fire. The Gas Distribution Control Center immediately began  
 10 developing isolation plans to “shut in” (stop) gas service in impacted  
 11 areas. Maintenance and Construction personnel worked out of local  
 12 offices to support the response effort. Ultimately, 614 gas customers  
 13 lost service as a result of the isolation plans that PG&E implemented.  
 14 Of these, 351 customers were restored immediately after the fire. The  
 15 remaining 263 customers could not be immediately restored because  
 16 their properties were either damaged or destroyed. Accordingly, their  
 17 gas services were cut and capped.

18 In 2023, PG&E incurred approximately \$430 in expense and  
 19 \$6 thousand in capital related to the 2018 Carr Fire, broken down in the  
 20 tables below.<sup>5</sup> The costs incurred for this event related to remaining full  
 21 gas service replacements and partial replacements at affected homes  
 22 during rebuild efforts.

**TABLE 4-4**  
**2018 CARR FIRE COST ELEMENT BREAKDOWN OF**  
**2023 EXPENSE COSTS**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$0.20
2	Labor	0.17
3	Materials	0.06
4	Other	—
5	Total	\$0.43

---

<sup>5</sup> See workpapers supporting this chapter for an additional breakdown of costs.

**TABLE 4-5  
2018 CARR FIRE COST ELEMENT BREAKDOWN OF  
2023 CAPITAL COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$.01
2	Labor	3.60
3	Materials	2.39
4	Other	0.33
5	Total	\$6.33

- 1 • The majority of Gas costs in the “contract” category relate to spoils;
- 2 • The majority of Gas costs in the “labor” category relate to contractor
- 3 consulting;
- 4 • The majority of Gas costs in the “materials” category relate to
- 5 working stock and other construction materials; and
- 6 • The majority of Gas costs in the “other” category relate to minor
- 7 materials and Payroll tax burdens.

8 **3. 2020 Glass Fire**

9 **a. Description of Event**

10 The Glass Fire began on September 27, 2020, at North Fork Crystal  
11 Springs Road in Deer Park and remained active for 23 days in Napa and  
12 Sonoma counties.

13 **b. PG&E’s Response Activities**

14 Gas initially activated its local Incident Management Team (IMT) in  
15 the Napa and Santa Rosa yards on September 28, 2020. These  
16 locations were then consolidated to the Sacramento yard, with support  
17 staff remaining in Napa and Santa Rosa. The Gas Emergency Center  
18 (GEC) was also activated remotely to support the IMT in fire response  
19 efforts. The emergency centers remained active through October 8,  
20 2020. Gas proactively shut in 4,197 customers in the impacted area.  
21 CAL FIRE requested the shut in and the GEC strategized completing  
22 the work.

23 In 2023, PG&E incurred approximately \$3 thousand in capital costs  
24 related to the 2020 Glass Fire, broken down in the tables below

1 follows.<sup>6</sup> The costs incurred for this event related to remaining full gas  
 2 service replacements and partial replacements at affected homes during  
 3 rebuild efforts.

**TABLE 4-6**  
**2020 GLASS FIRE COST ELEMENT BREAKDOWN OF**  
**2023 CAPITAL COSTS**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$2.70
2	Labor	0.04
3	Materials	0.63
4	Other	0.04
5	Total	\$3.41

- 4 • The majority of Gas costs in the “contract” category relate to paving  
 5 and grading services, inspections, and engineering and design;
- 6 • The majority of Gas costs in the “labor” category relate to contractor  
 7 consulting;
- 8 • The majority of Gas costs in the “materials” category relate to  
 9 working stock; and
- 10 • The majority of Gas costs in the “other” category relate to minor  
 11 materials.

12 **4. 2022 Humboldt County Earthquake**

13 **a. Description of Event**

14 On December 20, 2022, PG&E was notified of a magnitude  
 15 6.4 earthquake in northern California near the city of Ferndale in  
 16 Humboldt County impacting local communities with aftershocks taking  
 17 place at a magnitude of 4.6 near the city of Rio Dell. The earthquake  
 18 resulted in displacement of hundreds of individuals and multiple injuries  
 19 as well as road closures including closure of the Fernbridge on  
 20 Highway 211.

---

<sup>6</sup> See workpapers supporting this chapter for an additional breakdown of costs.

1           **b. PG&E’s Response Activities**

2           The GEC activated to support the Emergency Operations Center  
3           (EOC) on December 20, 2022. PG&E received multiple odor complaints  
4           after the earthquake. The Gas T&D pipelines in the Ferndale area were  
5           leak surveyed identifying a GT leak at a high-pressure regulator set  
6           served from L-126B, as well as four distribution leaks. Crews worked at  
7           the site to repair leaks and to make the area safe. Additional gas  
8           service representatives were dispatched to perform station assessments  
9           and standbys with construction crews and surveys continued for  
10          approximately 24,000 services through December 23, 2022.  
11          Approximately 80 services were restored as a result of leak survey  
12          efforts. Compressed Natural Gas/Liquefied Natural Gas was used to  
13          support customers while repairs were made, so no customers lost gas  
14          service during this time. The EOC and GEC were deactivated on  
15          December 23, 2022.

16          In 2023, PG&E incurred approximately \$0.16 million in expense and  
17          \$5.51 million in capital related to the 2022 Humboldt earthquake, broken  
18          down in the tables below.<sup>7</sup> The ongoing remediation costs incurred for  
19          this event related to relights, leak survey, construction and engineering  
20          services.

**TABLE 4-7**  
**2022 HUMBOLDT COUNTY EARTHQUAKE COST ELEMENT BREAKDOWN OF**  
**2023 EXPENSE COSTS**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$(194)
2	Labor	277
3	Materials	9
4	Other	65
5	Total	\$157

---

<sup>7</sup> See workpapers supporting this chapter for an additional breakdown of costs.

**TABLE 4-8  
2022 HUMBOLDT COUNTY EARTHQUAKE COST ELEMENT BREAKDOWN OF  
2023 CAPITAL COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$2,885
2	Labor	1,349
3	Materials	376
4	Other	903
5	Total	\$5,513

- 1 • The majority of Gas costs in the “contract” category relate to traffic
- 2 control, wet/dry spoils, hauling, equipment, paving and grading
- 3 services;
- 4 • The majority of Gas costs in the “labor” category relate to Gas
- 5 Construction, Engineering and Estimating services and overtime;
- 6 • The majority of Gas costs in the “materials” category relate to
- 7 supplies such as fuel, automotive supplies, working stock and other
- 8 construction materials; and
- 9 • The majority of Gas costs in the “other” category relate to Benefits
- 10 and Payroll tax burdens, lodging, and Fleet related overheads and
- 11 vehicle expenses.

**5. December – January Winter Storms (2022-2023)**

**a. Description of Event**

Beginning on December 27, 2022, severe storm events (a series of atmospheric river systems that struck California for the next several days and weeks) caused severe flooding, strong winds, debris and downed trees that damaged various components and equipment in PG&E’s gas system. This event required EOC activation on December 31, 2022 for field response and restoration work, primarily to gas meters damaged by flooding.

**b. PG&E’s Response Activities**

PG&E response activities to this event included leak survey to flooded assets as a result of debris flow in residential and business areas. Above ground gas assets exposed to flooding, such as meters,

1 were surveyed and checked for damage. In areas such as the cities  
 2 Aptos, Marina, and Monterey, customers had gas service shut off during  
 3 the meter repair process. Engineering, estimating, locating, construction  
 4 and various other services were required to service customers. The  
 5 EOC was supported by gas employees through deactivation on  
 6 January 17, 2023.

7 From July 1 through December 31, 2023, PG&E incurred  
 8 approximately \$0.37 million in expense and \$0.18 million in capital  
 9 related to the December – January Winter Storms (2022-2023). The  
 10 costs incurred from January 1 to June 30, 2023 were requested for  
 11 recovery in the 2023 WMCE proceeding. These costs continued into  
 12 the second half of the year for ongoing storm recovery efforts at affected  
 13 areas. These costs are broken down as follows:<sup>8</sup>

**TABLE 4-9  
 DECEMBER-JANUARY WINTER STORMS (2022-2023) COST BREAKDOWN OF  
 EXPENSE COSTS FROM JULY 1 THROUGH DECEMBER 31, 2023  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$54
2	Labor	96
3	Materials	210
4	Other	8
5	Total	\$368

**TABLE 4-10  
 DECEMBER-JANUARY WINTER STORMS (2022-2023) COST ELEMENT BREAKDOWN OF  
 CAPITAL COSTS FROM JULY 1 THROUGH DECEMBER 31, 2023  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$74
2	Labor	37
3	Materials	36
4	Other	32
5	Total	\$179

<sup>8</sup> See workpapers supporting this chapter for an additional breakdown of costs.

- 1 • The majority of Gas costs in the “contract” category relate to traffic  
2 control, wet/dry spoils, hauling, equipment, paving and grading services;
- 3 • The majority of Gas costs in the “labor” category relate to Gas  
4 Construction, estimating, overtime, and engineering services;
- 5 • The majority of Gas costs in the “materials” category relate to working  
6 stock, freight, and construction materials; and
- 7 • The majority of Gas costs in the “other” category relate to Benefits and  
8 Payroll tax burdens, lodging, and Fleet related overheads and vehicle  
9 expenses.

## 10 **6. 2023 February – March Storms**

### 11 **a. Description of Event**

12 In late February 2023, California was impacted by another series of  
13 severe storms, with damaging winds, rain, snow, and landslides.  
14 The damage caused by the storms required EOC and GEC activation  
15 and response work in relation to these storms through April 2023.

### 16 **b. PG&E’s Response Activities**

17 The EOC was first activated on February 21, 2023 to support  
18 PG&E’s various storm response efforts. There were four additional  
19 activations and deactivations in March, including one from March 9 to  
20 March 11 for storm response, two from March 13 to March 17 and  
21 March 21 to March 24 in response to an atmospheric river, and finally  
22 March 27 to March 29 for storm response. The majority of work  
23 completed by Gas in response to this event was related to the pipeline  
24 bypass project on Marin County’s L-021F to L-021G in Novato due to a  
25 landslide from the storms. GeoSciences monitored the hillside for  
26 movement with the GT and General Construction teams for activity in  
27 preparation for necessary response. On March 28, 2023, engineering  
28 and crews were dispatched and worked west of Redwood Boulevard  
29 along southbound Highway 101 to bypass the transmission line and  
30 ensure gas service to approximately 250,000 customers was not  
31 interrupted. At the conclusion of these storm response efforts, the EOC  
32 was deactivated on March 29, 2023.

1 From July 1 to December 31, 2023, PG&E incurred approximately  
 2 \$0.59 million in expense and \$1.5 million in capital related to these  
 3 winter storms. The costs incurred from January 1 to June 30, 2023  
 4 were requested for recovery in the 2023 WMCE proceeding. These  
 5 costs continued into the second half of the year and primarily included  
 6 contract costs related to the transmission pipe relocation. These costs  
 7 are broken down as follows in the table below:

**TABLE 4-11**  
**2023 FEBRUARY – MARCH STORMS COST ELEMENT BREAKDOWN OF**  
**EXPENSE COSTS FROM JULY 1 THROUGH DECEMBER 31, 2023**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$468
2	Labor	12
3	Materials	13
4	Other	94
5	Total	\$587

**TABLE 4-12**  
**2023 FEBRUARY – MARCH STORMS COST ELEMENT BREAKDOWN OF**  
**CAPITAL COSTS FROM JULY 1 THROUGH DECEMBER 31, 2023**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	CEMA-Eligible Spending
1	Contract	\$1,331
2	Labor	262
3	Materials	(46)
4	Other	(3)
5	Total	\$1,544

- 8 • The majority of Gas costs in the “contract” category relate to
- 9 transmission pipe construction related activity;
- 10 • The majority of Gas costs in the “labor” category relate to Gas
- 11 Construction, overtime, and engineering services;
- 12 • The majority of Gas costs in the “materials” category relate to
- 13 freight, and construction materials; and

- 1                   • The majority of Gas costs in the “other” category relate to Benefits  
2                   and Payroll tax burdens, lodging, and Fleet related overheads and  
3                   vehicle expenses.

4   **C. Conclusion**

5                   As explained above, PG&E’s costs of restoring gas service to customers,  
6                   repairing, replacing, or restoring damaged gas facilities, and complying with  
7                   governmental agency orders in connection with these events are reasonable  
8                   and limited to costs incurred in counties where a state of emergency was  
9                   declared by the Governor of the state of California. Thus, recovery of these  
10                  costs through CEMA should be approved.

**CHAPTER 4**  
**ATTACHMENT A**  
**ADDITIONAL MATERIAL**

CHAPTER 4  
ATTACHMENT A  
ADDITIONAL MATERIAL

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## CHAPTER 4 ATTACHMENT A ADDITIONAL MATERIAL

4 **A. PG&E’s Requested Gas Transmission and Distribution (T&D) Costs Are**  
5 **Eligible for Catastrophic Event Memorandum Account (CEMA) Recovery**

6 For 2022, Pacific Gas and Electric Company (PG&E or the Company)  
7 forecast its Gas Transmission (GT) routine emergency response budgets in the  
8 Gas Transmission and Storage (GT&S) Rate Case and Gas Distribution routine  
9 emergency response budgets in the General Rate Case (GRC), respectively,  
10 based upon historical trends for the normal number of units of work to perform  
11 routine emergency work. These forecasts do not include or reflect CEMA costs.

12 **1. Routine GRC and GT&S Work**

13 PG&E records costs associated with routine Gas T&D emergency  
14 response expense work in various Major Work Categories (MWC) and  
15 Maintenance Activity Types (MAT). The more common MWCs and MATs  
16 used are described below.

17 **a. Routine GT Pipeline Emergency Costs**

18 PG&E records costs associated with routine GT pipeline emergency  
19 response expense in MWC JT – GT Reliability and General  
20 Maintenance, including MAT JTB – Pipeline Repair.<sup>1</sup> This work  
21 includes responding to dig-ins, leaks, and non-routine corrective  
22 maintenance. Routine GT pipeline emergency response capital work is  
23 recorded in MWC 75 – GT Pipeline Reliability, including MAT 75L –  
24 Fault Crossings. This work includes pipe replacement required due to  
25 leaks, dig-ins, or corrosion-integrity issues.

26 **b. Routine Gas Distribution System Emergency Response Costs**

27 PG&E records costs associated with routine gas distribution system  
28 emergency response expense in MWC FI – Corrective Maintenance,  
29 including MAT FIM – Major Event – Distribution Gas. Activities

---

<sup>1</sup> If GT system emergency response expense work is performed on a station asset, costs may be recorded in MWC JP – GT Station Maintenance, including MAT JPN – Station Operations.

1 associated with MWC FI include work required to repair mains and  
2 services, such as leak repair. PG&E records costs associated with  
3 routine gas distribution system emergency response capital in  
4 MWC 52 – Gas Distribution Emergency Response, including  
5 MATs 52B – Emergency Response Gas Dig-Ins, Services and 52C –  
6 Emergency Response Gas Dig-Ins, Main. Activities associated with  
7 MWC 52 include replacement of mains and services due to incidents  
8 that do not result in an emergency declaration, such as dig-ins, or  
9 small-scale natural disasters such as landslides or localized  
10 earthquakes. PG&E also records costs associated with routine gas  
11 distribution system emergency response capital in MWC 50 – Gas  
12 Distribution Reliability, including MATs 50A – Reliability Main  
13 Replacement and 50B – Reliability Service Replacement. Activities  
14 associated with MWC 50 include replacing gas distribution mains and  
15 services.

## 16 **2. CEMA Gas T&D Restoration and Rebuild Work**

17 Non-routine, major emergency work is also recorded in the above  
18 MATs. However, such non-routine, major emergency work is recorded  
19 under the specially coded and titled orders described above that allow them  
20 to be clearly and automatically segregated from routine work of the same  
21 type and then moved to the CEMA MWCs. The CEMA mechanism allows  
22 PG&E to recover from its customers the incremental costs associated with  
23 response and restoration activities for a catastrophic CEMA event.<sup>2</sup> For the  
24 CEMA events described in the testimony above, incremental Gas CEMA  
25 costs incurred in the declared counties are included in this application.<sup>3</sup>  
26 These incremental costs qualify for CEMA recovery because they were  
27 incurred in counties where emergencies were declared.

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<sup>2</sup> See Chapter 10 which demonstrates the incrementality of costs requested in this application.

<sup>3</sup> See workpapers supporting this chapter for additional information on costs.

1 **B. PG&E’s Requested Gas T&D Costs Are Reasonable**

2 In the early stages of emergency response for the various CEMA events,  
3 Gas performed two primary tasks: (1) it stopped the flow of gas from damaged  
4 lines and meters, and (2) supported Electric Distribution with debris clean-up  
5 and standby efforts as needed. Once these two primary tasks were  
6 accomplished, Gas began restoration procedures. These include cutting and  
7 capping damaged gas lines for those structures that cannot receive gas service  
8 as well as inspecting, repairing, and replacing damaged meters for those  
9 customers whose structures can receive gas service.

10 The personnel involved in the CEMA event were requested by the Incident  
11 Management Team (IMT) Incident Commander (IC) in consultation with  
12 maintenance, construction, and engineering experts, in response to the need to  
13 expeditiously and safely return communities to states of relative normalcy.  
14 Generally, each cut-and-cap procedure takes three to four hours to complete  
15 safely. The time to excavate a gas line, replace damaged pipe, squeeze  
16 (close off) an existing line, or weld components are all factors in the total time  
17 needed to complete each cut and cap. Additionally, each cut-and-cap operation  
18 minimally requires a two-person crew with support from Leak Survey and Locate  
19 and Mark personnel. The Gas Services Representatives and Field Services  
20 personnel are able to complete pilot relights relatively quickly after services have  
21 been repaired by M&C. Even with personnel working 12-hour days, these  
22 processes can take weeks to safely complete in large communities and also  
23 depends on the impact of the event.

24 PG&E Gas response activities for the various CEMA events were necessary  
25 and reasonable given the extensive damage the events caused, as well as the  
26 potential damages the events threatened to cause that required standby service  
27 to support electric outages and prevent damage to gas facilities if the threats  
28 increased. PG&E acted prudently to ensure the safety of the public and to  
29 restore service to customers as quickly and efficiently as possible. Therefore,  
30 PG&E’s request for recovery pursuant to CEMA requirements is reasonable and  
31 should be granted.

1 **C. Accounting for Gas Emergency Costs**

2 During an emergency that affects gas facilities, Gas tracks the costs  
3 incurred to restore gas utility service and repair damaged facilities. The  
4 accounting process for Gas emergencies differs from the process for Electric  
5 Distribution.

6 Unlike Electric Distribution, Gas has not historically used MWCs that are  
7 exclusive to emergencies. Instead, Gas has historically used certain  
8 conventions to create accounting orders within existing MWCs featuring unique  
9 reason codes and titles to identify the emergency work and the county in which  
10 the work occurred. These orders are created for both capital and expense. This  
11 allows PG&E to query its accounting system to select for CEMA treatment only  
12 the emergency response work that occurred in the counties covered by a  
13 government-declared emergency. The Business Finance Department,  
14 Emergency Preparedness Coordinators, and the affected divisions review the  
15 orders to ensure that the costs identified for CEMA treatment did in fact occur  
16 within the timeframes of the CEMA event and within the appropriate counties, in  
17 accordance with CEMA-event charging guidelines. In 2018, Gas created  
18 catastrophic event MWCs 3Q (capital) and LX (expense). While Gas  
19 catastrophic event orders will continue to originate under existing MWCs aligned  
20 with the work performed, orders will then transition to Transmission or  
21 Distribution catastrophic event MATs under MWC 3Q and LX.

22 **D. Gas Incident and Emergency Response Process**

23 This section defines gas incidents and emergencies, and describes PG&E's  
24 gas service territory, the Gas Emergency Response Plan (GERP), Gas  
25 Emergency Center (GEC) and field facilities, levels of gas incidents/emergencies  
26 and activation criteria, incident response, outage communication, and  
27 emergency cost recovery management.

28 **1. Gas Incident/Emergency Definition**

29 A gas incident/emergency occurs when there is:

- 30 • An actual or potential hazardous escape of gas;
- 31 • An over pressure or under pressure situation; or
- 32 • An interruption of gas supply.

1       **2. Scope of PG&E Gas Facilities Exposed to Potential Emergency**  
2       **Conditions**

3           PG&E’s Gas Operations is divided into transmission, storage, and  
4           distribution operations. The GT system includes the backbone pipelines that  
5           transport gas from interstate pipelines connected to natural gas basins in  
6           western North America, including western Canada and southwest and  
7           Rocky Mountains of the United States.

8           Local GT lines transport gas from the backbone pipelines to the  
9           distribution system. They also move gas into and out of underground  
10          natural gas storage fields. Gas Operations also maintains Compressed  
11          Natural Gas (CNG)/Liquefied Natural Gas (LNG) injection capabilities to  
12          support local T&D disruptions.

13          To manage the gas system, PG&E has divided its gas service territory  
14          into five regions and 18 divisions. Similarly, to manage GT, PG&E has  
15          established 13 districts. Resources are typically assigned to one region,  
16          division, area, or district, but can be moved within and across boundaries as  
17          required for incident response.

18          Gas Operations are managed from the Gas Operations Center in  
19          San Ramon. The Gas Operations Center is comprised of Gas Dispatch and  
20          Scheduling, the Gas T&D Control Center. Each region and division has  
21          local engineering resources to coordinate with the Gas Operations Center in  
22          the event of an incident/emergency.

23       **3. Gas Emergency Response Plan**

24           The GERP is the Gas functional annex to the Company Emergency  
25           Response Plan (CERP).

26           The GERP provides detailed information about PG&E’s planned  
27           response to Gas T&D incidents/emergencies. GERP guidance is consistent  
28           with the Incident Command System (ICS). The ICS is a standardized,  
29           all-hazard incident management system that provides a systematic,  
30           proactive approach for the government, nongovernmental organizations,  
31           and the private sector to work together in an incident, in order to reduce the  
32           loss of life and property and harm to the environment. The ICS is based on  
33           proven management principles, implemented through a wide range of

1 management features including the use of common terminology and a  
2 modular organizational structure.

3 The GERP incorporates industry best practices, standards,  
4 requirements, regulations, and laws into its emergency response protocols.  
5 The GERP supports responding to all incidents/emergencies as “One  
6 PG&E” through integration with the CERP and the other functional areas  
7 (e.g., Electric Operations). The GERP identifies the relationship between  
8 Gas emergency response and other company-wide planning efforts, such as  
9 Business Continuity and Community Recovery processes.

#### 10 **4. Incident Levels and Activation Criteria**

11 PG&E uses a 5-level system to manage gas incidents/emergencies.

12 See Table 1 below.

**TABLE 4A-1  
5-LEVEL SYSTEM MANAGING GAS INCIDENTS/EMERGENCIES**

Line No.	Level	Label	Description
1	1	Routine	Involves a relatively small number of customers, such as those managed during routine operations. Local resources are the preferred response. Does not require the activation of an IMT.
2	2	Elevated	Requires more than routine response. Resources are mainly local, but there is a possibility that resources may need to move within the region/area. An IMT may be activated with Command and General Staff. Full IMT activation is possible.
3	3	Serious	Involves a large number of customers. Resources primarily move within the region/area but may need to move between regions/areas. One or more IMT(s) may activate. The GEC and/or the Emergency Operation Center (EOC) may activate.
4	4	Severe	Involves an escalating incident with Company impact or extended multiple emergency incidents that impact a large number of customers. Resources are brought in from outside the division, district, area and/or region. Gas Construction and contractor resources are mobilized across regions. The IMT(s), GEC and EOC are activated.
5	5	Catastrophic	Involves multiple incidents, impacts a large number of customers, has a significant cost, and results in significant infrastructure risk/damage. Emergency affects the ability to conduct business operations. Full mobilization of company resources is needed to respond, and mutual aid is needed. The IMT(s), GEC, and EOC are activated.

1 PG&E's Incident Level system allows PG&E to quickly and decisively  
2 understand the actions that should be taken. Determining the incident level  
3 includes identifying actual and potential customer outages (since responses to  
4 gas incidents involve considerations of peak capability), possible non-core  
5 customer curtailments, gas system back-feeding options, and the use of  
6 LNG/CNG. A primary focus of gas response is dedicated to prevention of gas  
7 service interruption, with restoration being the secondary focus.

## 8 **5. Gas Emergency Centers (GEC and EOC) and Field Facilities**

9 Emergency Centers and field facilities are important parts of PG&E's  
10 emergency response. Depending on the level of the incident, command and  
11 control may be executed at any one of PG&E's designated emergency  
12 centers.

### 13 **a. Incident Management Teams**

14 IMT staff provide oversight and support at the division and/or district  
15 level. IMT staff is composed of a pool of personnel, with at least  
16 eight people available per ICS position. These positions include  
17 Command, Operations, Planning and Intelligence, Logistics, Finance  
18 and Administration, Safety, Public Information Office duties, Liaison  
19 duties, and Customer Strategy. These personnel are available for IMT  
20 duty and may be called, as needed. The IMT is activated by Gas  
21 Emergency personnel with authority to activate. Once formed in  
22 response to an incident, an IMT directs and coordinates the personnel  
23 necessary to assess damage, make safe, restore service, and  
24 communicate status information internally and externally. IMTs may  
25 support more than one incident at a time, and may have several Incident  
26 Command Posts (ICP) reporting to them.

### 27 **b. Gas Emergency Center**

28 The GEC, which is located within the Gas Operations Center in San  
29 Ramon, is staffed by an Incident Support Team/GEC Team that  
30 activates in support of gas-only incidents or the gas aspects of  
31 dual-commodity (gas and electric) events when the EOC has been  
32 activated for dual-commodity events. Five teams are available for GEC  
33 duty and serve on a two-week rotational basis. The GEC is activated by

1 Gas Emergency personnel with authority to activate. During  
2 dual-commodity events, the GEC may support the EOC in Operations,  
3 Planning and Intelligence, Logistics, Finance and Administration, Safety,  
4 Public Information Office duties, Liaison duties, and Customer Strategy.  
5 During an EOC activation, the GEC reports to the Gas Operations  
6 Branch in the EOC. If the EOC is not activated, the GEC manages the  
7 overall gas incident.

8 **c. Emergency Operations Center**

9 The EOC is a designated location where information and resources  
10 are coordinated to support incident management activities. EOC  
11 activation occurs for Level 4 or 5 incidents, or during a Level 3 incident  
12 when deemed necessary by the IC and/or the Director of Emergency  
13 Preparedness and Response.

14 When the EOC is activated, the EOC Commander establishes  
15 priorities for the incident and supports the emergency centers and field  
16 responders. During significant emergency incidents, PG&E may  
17 activate additional emergency centers to support the primary EOC  
18 activities. These emergency centers manage the work in a defined  
19 geographic region. They are responsible for directing resources to  
20 implement actions and for reporting status and progress through the  
21 emergency center chain of command ultimately to the EOC.

22 **d. Incident Command Post**

23 At the scene of a Level 1 incident, activities of on-scene response  
24 personnel are typically managed at a gas ICP location. The IC or  
25 delegate serves as the single point of contact for all off-site (e.g., Gas  
26 Control Center) and other PG&E (e.g., Company Communications)  
27 groups.

28 **e. Mobile Command Vehicle**

29 A Mobile Command Vehicle (MCV) is a specialized vehicle that can  
30 be deployed to and stationed at the scene of an incident. The MCV can  
31 act as an ICP or an emergency center, if warranted. MCVs help  
32 facilitate communication between response crews, command staff, and  
33 government agencies. There are three types of MCVs available at the

1           Company: Type I Commander (motor coach), Type III Sprinter (van),  
2           and Emergency Communications Trailer. MCVs are specially outfitted  
3           for events that may require multiple personnel to be stationed near the  
4           site of an incident for one or more days.

5           **6. Key Response Steps**

6           PG&E uses the ICS structure, which is a systematic tool used for the  
7           command, control, and coordination of incident/emergency response, to  
8           complete key steps in the incident response. The ICS involves a structured  
9           response to:

- 10          1) Establish command;
- 11          2) Assess the situation;
- 12          3) Take “Make Safe” actions;
- 13          4) Communicate with and notify all necessary parties, including first  
14          responders, government agencies, and customers (ongoing);
- 15          5) Restore service; and
- 16          6) Recover/Demobilize.

**CHAPTER 5**  
**POWER GENERATION: CEMA**

CHAPTER 5  
POWER GENERATION: CEMA

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1 **CHAPTER 5**  
2 **POWER GENERATION: CEMA**

3 **A. Introduction**

4 This chapter discusses certain costs for Pacific Gas and Electric Company's  
5 (PG&E) Power Generation (PG) functional area that were recorded during year  
6 2023 in its Catastrophic Events Memorandum Account (CEMA). With respect to  
7 the CEMA costs, this chapter demonstrates the necessity and reasonableness  
8 of activities PG&E took to protect, rebuild, and restore service to PG facilities  
9 damaged during the following CEMA events:

- 10 • 2021 August River Fire;  
11 • 2021 December Winter Storms;  
12 • December 2022 Humboldt County Earthquake;  
13 • 2022 Fork Fire;  
14 • December – January Winter Storms (2022-2023); and  
15 • 2023 February – March Storms

16 PG&E's response to these events was coordinated and managed so that the  
17 PG facilities could be restored as quickly and efficiently as possible. The steps  
18 PG&E took were necessary and reasonable to eliminate potentially hazardous  
19 conditions, rebuild or replace damaged facilities, and restore service.

20 The remainder of this chapter is organized as follows:

- 21 • Section B provides a summary of the cost recovery request;  
22 • Section C explains the costs incurred by PG in response to these  
23 catastrophic events; and  
24 • Section E provides a brief conclusion.

25 **B. Summary of Request**

26 PG&E recorded PG expenses of \$2.7 million and capital expenditures of  
27 \$2.1 million as shown in Table 5-1 below.

**TABLE 5-1  
POWER GENERATION CEMA COSTS  
BREAKDOWN OF COSTS BY EVENT  
(THOUSAND OF DOLLARS)**

Line No.	Accounts and Events	Expense	Capital	Total
1	2021 August River Fire	\$92	–	\$92
2	2021 December Storms	–	\$160	160
3	2022 Humboldt Earthquake	249	–	249
4	2022 Fork Fire	22	179	201
5	December- January Winter Storms (2022-2023) <sup>(a)</sup>	76	1,579	1,655
6	2023 February – March Storms <sup>(b)</sup>	2,295	132	2,427
7	Total	\$2,733	\$2,051	\$4,783

(a) Costs from July 1, 2023 to December 31, 2023 are included in this filing.

(b) Costs from July 1, 2023 to December 31, 2023 are included in this filing.

**C. Damages and Restoration of Power Generation Facilities**

PG forecasts its routine emergency and maintenance costs in the General Rate Case (GRC), based upon the historical trend for normal routine emergency work. These forecasts do not include or reflect CEMA costs incurred during or following major storm or fire events that have been declared catastrophic events by a state or federal governmental agency. CEMA allows PG&E to recover from customers the incremental costs associated with response and restoration activities for a government declared catastrophic event, subject to a California Public Utilities Commission (CPUC) reasonableness review proceeding.

Costs for routine operations, maintenance, and compliance for PG&E’s hydro generation facilities are primarily based upon labor and other recurring costs and are typically consistent year over year. The costs of the individual projects included in the Hydro forecast are estimated on a project specific basis. PG&E’s forecast is based on a bottom-up calculation of the expected costs for the projects and programs to be implemented in the forecast year.

Costs recorded to CEMA reflect the spending incurred to rebuild, repair, or restore the existing facilities damaged due to a fire or storm event of significant magnitude. These costs are tracked and accounted for separately from the routine operation and are not recovered through the GRC.

The CEMA events described in this chapter affected or threatened to affect PG&E PG facilities. PG&E’s actions in response to these incidents were

1 necessary and reasonable given the extensive damage the emergency events  
2 caused and the further damage they threatened to cause.

3 **1. 2023 Costs Related to Prior Year Events**

4 **a. 2021 August River Fire**

5 **1) Description of Event**

6 On August 4, 2021, high temperature, low humidity, and wind  
7 gusts resulted in the issuance of a Red Flag Warning near the  
8 ignition site from the National Weather Service in Sacramento. The  
9 warning mentioned the gusty winds in combination of very low  
10 humidity and extremely dry fuels would bring elevated severity to  
11 locally critical fire weather conditions around the region. Although  
12 the fire was active for 9 days, it was the 5th most destructive fire in  
13 California of 2021.

14 **2) Damaged Facilities**

15 The fire damaged 3 telemetry sites along the Bear River Canal.

16 **3) Restoration Activities**

17 PG&E's continued response to the event and the costs that  
18 were incurred in 2023 were largely driven by the removal of trees,  
19 brush, and other vegetation. This included the removal of hazards  
20 within the impacted area. Other activities included but were not  
21 limited to traffic control, security services, repair of the telemetry  
22 sites, and activities to restore power.

23 In 2023, PG&E incurred \$92 thousand of expense costs in  
24 connection with PG's response to this fire. The \$92 thousand can  
25 be broken down as shown in Table 5-2:

**TABLE 5-2  
2021 RIVER FIRE INCIDENT  
COST ELEMENT BREAKDOWN OF 2023 COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	Expense	Capital	Total
1	Contract	\$67	–	\$67
2	Labor	25	–	25
3	Materials	–	–	–
4	Other	0	–	0
5	Total	\$92	–	\$92

1           **b. 2021 December Storms**

2                   **1) Description of Event**

3                               On December 30, 2021, the governor of the state of California,  
4                               Gavin Newsom, issued a State of Emergency Proclamation as a  
5                               result of the 2021 December Winter Storms<sup>1</sup>. The State of  
6                               Emergency Proclamation was issued under the California  
7                               Emergency Services Act and Section 8625 of the California  
8                               Government Code and applies to Alameda, Amador, Calaveras,  
9                               El Dorado, Humboldt, Lake, Los Angeles, Marin, Monterey, Napa,  
10                              Nevada, Orange, Placer, Sacramento, San Bernardino,  
11                              San Luis Obispo, San Mateo, Santa Cruz, Sierra, and Yuba  
12                              counties. On January 8, 2022, Governor Newsom issued another  
13                              State of Emergency Proclamation expanding the impacted counties  
14                              to Trinity County<sup>2</sup>.

15                   **2) Damaged Facilities**

16                              The 2021 December Winter Storms is estimated to have  
17                              damaged approximately 4,053 Electric Distribution facilities and  
18                              two Electric Generation facilities. As of January 11, 2022, the 2021

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1   Executive Department, State of California, *Proclamation of a State of Emergency* (Dec. 30, 2021), available at: <<https://www.gov.ca.gov/wp-content/uploads/2021/12/12-30-21-SOE-December-2021-Winter-Storms.pdf>> (accessed Nov. 15, 2024).

2   Executive Department, State of California, *Proclamation of a State of Emergency* (Jan. 8, 2022), available at: <<https://www.gov.ca.gov/wp-content/uploads/2022/01/1.8.22-SOE-Proc-Winter-Stroms-Add-On.pdf>> (accessed Nov. 15, 2024).

1 December Winter Storms is estimated to have disrupted service to  
2 about 315,141 electric customers across PG&E’s service territory.

3 **3) Restoration Activities**

4 In 2023, restoration activities included clearing tree stumps and  
5 roots and backfilling the subsequent voids with compacted,  
6 engineered fill. PG&E incurred an additional \$160 thousand in  
7 connection with PG&E’s response to this storm. The \$160 thousand  
8 can be broken down as shown in Table 5-3:

**TABLE 5-3  
2021 DECEMBER STORMS  
COST ELEMENT BREAKDOWN OF 2023 COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	Expense	Capital	Total
1	Contract	–	\$38	\$38
2	Labor	–	94	94
3	Materials	–	13	13
4	Other	–	15	15
5	Total	–	\$160	\$160

9 **c. 2022 Humboldt County Earthquake**

10 **1) Description of Event**

11 On December 20, 2022, PG&E was notified of a magnitude  
12 6.4 earthquake in northern California, near the city of Ferndale in  
13 Humboldt County impacting local communities with aftershocks of a  
14 magnitude of 4.9 near the City of Rio Dell. The earthquake resulted  
15 in displacement of hundreds of individuals and multiple injuries as  
16 well as road closures, including closure of the Fernbridge on  
17 Highway 211.

18 **2) Damaged Facilities**

19 Humboldt Bay Generating Station sustained the following  
20 damages:

- 21 • Flexible bellows on seven engines were damaged;
- 22 • Concrete containment areas settled resulting in damage to  
23 caulking that seals the containments;

- Damage to roadways (settling and cracking);
- Steps up to various buildings settled resulting in uneven walkways;
- Isolation buffers on engine foundations were damaged;
- Various tool cabinets fell over and were damaged;
- Scaffolding was rendered unsafe until inspected or repaired; and
- Flexible bellows connecting the engines to the oil and cooling water piping systems were damaged, resulting in the spill of oil/cooling water in the engine hall that overwhelmed sump capability and led to an overspill into a gravel bed at two separate locations under the Selective Catalytic Reduction/Reducers as well as an oil leak into the secondary containment of a holding tank.

### **3) Restoration Activities**

Restoration activities for this event continued throughout 2023. These activities included cleaning spilled oil/water inside the engine hall. In addition, emergency spill response contractors were mobilized to remove impacted gravel from the sump overspill areas as well as cleaning the holding tank containment and sump. Non-Resource Conservation and Recovery Act Hazardous Waste was generated and needed to be properly stored, transported, and disposed. Additional mobilizations occurred in late 2023 to remove more impacted gravel that remained following previous remediation efforts. Waste was generated during these efforts as well. Spilled oil and cooling water had to be replaced. Damaged caulking in containments had to be replaced. Contractors had to be hired to assist in the replacement of damaged bellows; new bellows and isolation buffers also had to be purchased to complete the replacements. Contractors were also hired to replace rock under the Exhaust Area. Overturned tool and warehouse cabinets, scaffolding was inspected and repaired. Engineers performed inspections for structural integrity of entire facility.

1 In 2023, PG&E incurred \$249 thousand of expense costs  
 2 related to PG’s response to this earthquake. Table 5-4 summarizes  
 3 the costs incurred for these efforts.

**TABLE 5-4  
 2022 HUMBOLDT COUNTY EARTHQUAKE  
 COST ELEMENT BREAKDOWN OF 2023 COSTS  
 (THOUSANDS OF DOLLARS)**

Line No.	Cost Category	Expense	Capital	Total
1	Contract	\$150	–	\$150
2	Labor	33	–	33
3	Materials	400	–	400
4	Other	(335)	–	(335)
5	Total	\$249	–	\$249

4 **d. 2022 Fork Fire**

5 **1) Description of Event**

6 The Fork Fire began on September 7, 2022. Observation site  
 7 PG573 recorded a high temperature of 98.3°F at 15:40 and a low  
 8 temperature of 73.7°F at 06:50 hours. Conditions were not terribly  
 9 dry as the maximum humidity was as high as 36 percent at 23:50  
 10 and as low as 18 percent at 15:50. Winds were mostly from the  
 11 westerly direction early in the day before switching from the  
 12 southeast direction in the late morning. The strongest wind gust  
 13 was 14.2 megawatts per hour at 14:20 from the east-southeast  
 14 direction. Due to the lack of extreme fire weather conditions over  
 15 the next several days, this fire was contained relatively quickly within  
 16 6 days and remained under a thousand acres.

17 PG&E incurred \$100 thousand in connection with PG’s  
 18 response to the Fork Fire.

19 **2) Damaged Facilities**

20 The Fork Fire burned a total of 819 acres in Madera County,  
 21 which was contained on September 14, 2022 (7 days). The fire  
 22 damaged the Crane Valley South Fork Flume.

1                   **3) Restoration Activities**

2                   PG&E’s continued response to the event and the costs that  
3                   were incurred in 2023 included the removal of trees, brush, and  
4                   other vegetation. This included the removal of hazards within the  
5                   impacted area. Engineers have also produced designs for repairing  
6                   and replacing flumes and footings where necessary. These designs  
7                   have been submitted to FERC for final approval to construct. In  
8                   2023, PG&E incurred \$201 thousand of costs related to PG’s  
9                   response to this fire. Table 6-8 summarizes the costs incurred for  
10                  these efforts.

**TABLE 5-5  
2022 FORK FIRE  
COST ELEMENT BREAKDOWN OF 2023 COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	Expense	Capital	Total
1	Contract	\$23	\$46	\$68
2	Labor	–	119	119
3	Materials	–	1	1
4	Other	(1)	14	13
5	Total	22	\$179	\$201

11                  **e. December – January Winter Storms (2022-2023)**

12                   **1) Description of Event**

13                   There was a series of storms throughout the PG&E service  
14                   territory during December 2022 and through most of January 2023.  
15                   The first storm in this series started on December 26, 2022, and the  
16                   last of which did not conclude until January 27, 2023. These storm  
17                   events were significant and historic and featured significant rainfall  
18                   and wind gusts. Many parts of the service territory received 0.50 to  
19                   2.00 inches of precipitation during many of the storms in this  
20                   catastrophic storm series. Some parts of the service territory  
21                   received as much as 5.00 inches of rain during one storm in this  
22                   series of events. Many parts of the service territory experienced  
23                   sustained wind gusts between 30 and 50 mph during these winter  
24                   storms while some isolated gusts measured as fast as 80 mph. On

1 January 4, 2023, Governor Gavin Newsom, the governor of  
2 California, proclaimed a statewide state of emergency because of  
3 the impact of this series of storms<sup>3</sup>. Furthermore, on January 14,  
4 2023, “President Joseph R. Biden, Jr, declared that a major disaster  
5 exist[ed] in the State of California”<sup>4</sup> because of this series of storms.

## 6 **2) Damaged Facilities**

7 The 2022/2023 December – January winter storms damaged  
8 multiple roadways, culverts, facility fencing, vehicle access gates,  
9 employee housing, canals, rock fall hazards, gauging stations, and  
10 other communication devices. Flooding from the storms also lifted  
11 the Halsey Penstock, which destroyed some of its joints.

## 12 **3) Restoration Activities**

13 Restoration activities included continued removal of soils and  
14 debris, removal of high-hazard trees, and the clearing of culverts  
15 and waterways. Restoration work also included installing erosion  
16 control as well as drainage to divert water away from affected  
17 access roads and the Halsey Penstock. The joints at the Halsey  
18 Penstock that were damaged were also replaced.

19 In 2023, PG&E incurred a total of \$1.7 million of costs in  
20 connection with PG’s response to these storms. Table 5-6  
21 summarizes the costs incurred by PG for these activities:

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<sup>3</sup> Executive Department, State of California, *Proclamation of a State of Emergency* (Jan. 4, 2023), available at: <<https://www.caloes.ca.gov/office-of-the-director/policy-administration/legal-affairs/emergency-proclamations/>> (accessed Nov. 15, 2024).

<sup>4</sup> The White House, *President Joseph R. Biden, Jr. Approves California Disaster Declaration* (Jan. 14, 2023), available at: <<https://www.whitehouse.gov/briefing-room/statements-releases/2023/01/14/president-joseph-r-biden-jr-approves-california-disaster-declaration-3/>> (accessed Nov. 15, 2024).

**TABLE 5-6  
DECEMBER - JANUARY WINTER STORMS (2022-2023)  
COST ELEMENT BREAKDOWN OF 2023 COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	Expense	Capital	Total
1	Contract	\$40	\$565	\$605
2	Labor	28	664	691
3	Materials	5	241	246
4	Other	3	109	111
5	Total	\$76	\$1,579	\$1,655

**f. 2023 February – March Storms**

**1) Description of Event**

There was a series of storms throughout the PG&E service territory in February and March 2023. The first storm in this series started on February 21, 2022. The last storm in the series hit the service territory on March 21, 2023. These storm events were significant and historic and featured significant rainfall and wind gusts. Many parts of the service territory received 1.25 to 3.00 inches of precipitation during many of the storms in this catastrophic series. Some parts of the service territory received more than 4 inches of rainfall in just one day during this storm series. Snowfall during some of these storms affected areas below 3,000 feet of elevation. Many parts of the service territory experienced sustained wind gusts between 30 and 65 mph during these winter storms while some isolated gusts measured faster than 70 mph. Much of the storm activity and subsequent outages were consistent with Category 4 and 5 totals. Initially, on March 1, 2023, Governor Newsom proclaimed a state of emergency because of the impact of this storm for thirteen counties: Amador, Kern, Los Angeles, Madera, Mariposa, Mono, Nevada, San Bernadino, San Luis Obispo, Santa Barbara, Sierra, Sonoma, and Tulare<sup>5</sup>. On

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<sup>5</sup> Executive Department, State of California, *Proclamation of a State of Emergency* (Mar. 1, 2023), available at: <<https://www.caloes.ca.gov/wp-content/uploads/Legal-Affairs/Documents/Proclamations/3.1.23-Storms-State-of-Emergency-signed.pdf>> (accessed Nov. 15, 2024).

1 March 8, 2023, Governor Newsom extended the state of emergency  
2 related to these storms to include the counties of Butte, El Dorado,  
3 Fresno, Humboldt, Imperial, Inyo, Lake, Mendocino, Merced,  
4 Monterey, Napa, Placer, Plumas, Sacramento, San Francisco, San  
5 Mateo, Santa Clara, Santa Cruz, Stanislaus, Tuolumne, and Yuba<sup>6</sup>.  
6 Furthermore, on April 3, 2023, President Biden “declared that a  
7 major disaster exist[ed] in the State of California” <sup>7</sup> because of this  
8 series of storms.

## 9 **2) Damaged Facilities**

10 The February – March winter storms damaged multiple  
11 roadways, culverts, facility fencing, vehicle access gates, employee  
12 housing, canals, rock fall hazards, gauging stations, recreational  
13 sites, other communication devices and facility damage like roofing  
14 repair due to snow load or exterior windows that were damaged due  
15 to high winds.

## 16 **3) Restoration Activities**

17 Restoration activities included work to clear soils and debris  
18 from the area for employees and contractor’s safe access to perform  
19 site visits and collect data for restoration work; removal of  
20 high-hazard trees due to snow load; clearing culverts; repairing  
21 damaged sections of road; clearing debris from the waterways to  
22 prevent damage to powerhouses and other parts of the canal  
23 system downstream; and installing new drainage and erosion  
24 protection to divert water away from access roads and conveyance  
25 systems. Restoration work also included assessing and reinforcing  
26 sections of land that were susceptible to slides or failure; replacing  
27 public benches, bear boxes, and station service at

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6 Executive Department, State of California, *Proclamation of a State of Emergency*, (Mar. 8, 2023), available at <<https://www.caloes.ca.gov/wp-content/uploads/Legal-Affairs/Documents/Proclamations/3.8.23-SOE-Storms-Additional-Counties.pdf>> (accessed Nov. 15, 2024).

7 The White House, *President Joseph R. Biden, Jr. Approves California Disaster Declaration* (Apr. 3, 2023), available at: <<https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/03/president-joseph-r-biden-jr-approves-california-disaster-declaration-4/>> (accessed Nov. 15, 2024).

1 PG&E-maintained campsites; and submitting final drawings to  
2 regulators.

3 In 2023, PG&E incurred \$2.4 million of costs related to PG's  
4 response to these storms. The \$2.4 million can be broken down as  
5 shown in Table 5-7:

**TABLE 5-7**  
**2023 FEBRUARY – MARCH STORMS**  
**COST ELEMENT BREAKDOWN OF 2023 COSTS**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Category	Expense	Capital	Total
1	Contract	\$1,706	\$77	\$1,783
2	Labor	271	49	321
3	Materials	199	–	199
4	Other	118	6	124
5	Total	\$2,295	\$132	\$2,427

6 **D. Conclusion**

7 The incremental recorded costs discussed in this chapter were necessary to  
8 mitigate the effects of fire and storm related emergencies, to reduce the  
9 likelihood and impact of fire and storm related damages on PG&E's power  
10 generation facilities and other assets. The costs incurred performing those  
11 activities were reasonable, and the CPUC should authorize PG&E to recover  
12 them in this application.

**CHAPTER 6**  
**GAS STATUTES REGULATIONS AND RULES**  
**MEMORANDUM ACCOUNT**

CHAPTER 6  
GAS STATUTES REGULATIONS AND RULES  
MEMORANDUM ACCOUNT

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**CHAPTER 6**  
**GAS STATUTES REGULATIONS AND RULES**  
**MEMORANDUM ACCOUNT**

**A. Introduction**

The Gas Statutes Regulations and Rules Memorandum Account (GSRRMA) was adopted by the California Public Utilities Commission (CPUC or Commission) in Decision 19-09-025 in Pacific Gas and Electric Company’s (PG&E) 2019 Gas Transmission and Storage (GT&S) Rate Case (Application 17-11-009). The GSRRMA tracks and records incremental costs to comply with any new federal or state statutes, regulations and rules, or new or changed interpretation by a regulatory body of statutes, regulations and rules that are issued in between rate case funding cycles for which PG&E has not been able to incorporate a forecast of costs into a rate case and which are not already addressed and recorded in another account.<sup>1</sup>

At year-end December 31, 2023, PG&E has incurred 2023 capital expenditures of approximately \$4.0 million and approximately \$3.6 million in expense for a total of approximately \$7.6 million in recorded costs related to the GSRRMA as shown in Table 6-1 and Table 6-2 below. PG&E seeks a determination that these costs were reasonably incurred and recovery of these costs in rates is appropriate.

**TABLE 6-1**  
**2023 GSRRMA CAPITAL RECORDED COSTS**  
**(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Program	2023 Recorded Costs	New Federal or State Statute, Regulation or Rule	Testimony Section	Witness
1	Gas Pipeline Security Directives (SD) (MATs 2FA, 2F#, and 75C)	\$3,983	TSA SD	B	David Lo
2	Total Recorded Costs	\$3,983			

<sup>1</sup> Advice Letter 4468-G, Gas Preliminary Statement Part EL.

**TABLE 6-2  
2023 GSRMA EXPENSE RECORDED COSTS  
(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Program	2023 Recorded Costs	New Federal or State Statute, Regulation or Rule	Testimony Section	Witness
1	Gas Pipeline Security Directives (MATs AB#, AB1, JV2, JV#, and KZD)	\$3,376	Transportation Security Administration (TSA) SD	B	David Lo
2	Safety and Enforcement Division (SED) Directive: BTEX Monitoring Plan (JT8)	206	SED Directive: BTEX Monitoring Plan	C	Karli Maeda
3	Total Recorded Costs	\$3,582			

**B. Gas Pipeline Security Directive (Witness: David Lo)**

Following the 2021 Colonial Pipeline ransomware attack, the United States Department of Homeland Security’s (DHS) TSA announced the issuance of SD Pipeline-2021-01: Pipeline Cybersecurity Mitigation Actions, Contingency Planning, and Testing which became effective May 27, 2021 (hereinafter SD-01) that applies to certain Owners and Operators of critical pipeline systems and facilities.<sup>2</sup> The directive mandates cybersecurity mitigation measures to protect pipeline systems.<sup>3</sup> On July 20, 2021, a second directive, SD Pipeline-2021-02 (herein after SD-02), went into effect, further requiring Owners and Operators of critical pipeline systems and facilities to implement cybersecurity measures to protect against ransomware attacks and other known threats to information technology (IT) and operational technology (OT) systems.

The ransomware attack that shutdown Colonial Pipeline’s operations for 5 days resulted in a localized shortage of diesel fuel, gasoline, and jet fuel. This resulted in panic buying across the southeastern United States and shut down

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<sup>2</sup> TSA SD Pipeline-2021-01 and SD Pipeline-2021-02 were shielded from public disclosure. The SD’s contain Sensitive Security Information that is controlled under 49 Code of Federal Regulations Parts 15 and 1520. PG&E has generalized the activities based on the public press release to avoid divulging sensitive information. See DHS Announces New Cybersecurity Requirements for Critical Pipeline Owners and Operators (July 20, 2021), available at: [DHS Announces New Cybersecurity Requirements for Critical Pipeline Owners and Operators, Second Security Directive | Homeland Security](#) (accessed Nov. 15, 2024).

<sup>3</sup> Pipeline systems refer to operational natural gas and hazardous liquid transmission pipeline systems, natural gas distribution pipeline systems, and liquified natural gas facility owners.

1 the entire pipeline which transports 2.5 million barrels of fuel daily. Additionally,  
2 100 gigabytes of data were stolen. There was \$4.4 million in ransom paid  
3 (mostly recovered by the Federal Bureau of Investigation) and approximately  
4 \$1.0 million fine from the United States Department of Transportation's Pipeline  
5 and Hazardous Materials Safety Administration.

6 After the Colonial Pipeline ransomware incident and the issuance of the TSA  
7 SDs, PG&E evaluated the ransomware attack scenario against our internal  
8 controls, established a TSA SD taskforce, conducted initial TSA SD-01  
9 assessment of our security posture, and hired an external consulting firm to help  
10 develop our implementation plan for TSA SD-02. PG&E continues to evaluate  
11 the internal controls and mitigations to stay abreast of the fluid threat landscape.  
12 The rapid increase of cyber-attacks on the utility and energy sector can be  
13 attributed to threat actor groups growing monthly with new groups being created  
14 and new payloads and attacks introduced daily. According to Marsh Cyber  
15 Insurance Brokers, there was a 300 percent increase in the impacts of  
16 cyber-attacks on Power and Utility companies from 1Q 2022 to 1Q 2023. In  
17 addition to tracking the evolving threat actor's tactics, techniques, and  
18 procedures, the cybersecurity organization is partnering with the Gas Operations  
19 functional area to specifically identify evolving threats that may impact gas  
20 operations in the future. The goal of the SDs is to reduce the risk that  
21 cybersecurity threats pose to critical pipeline systems and facilities by  
22 implementing layered cybersecurity measures that demonstrate a  
23 defense-in-depth approach against such threats by establishing and  
24 implementing a detailed and actionable TSA approved Cybersecurity  
25 Implementation Plan (CIP). Several revisions were made by the TSA to SD  
26 Pipeline-2021-02 with the latest revision SD Pipeline-2021-02D (SD02D)  
27 published on July 26, 2023, which supersedes prior directives such as SD  
28 Pipeline-2021-02C. PG&E anticipates that a multiyear effort is necessary to  
29 meet the requirements set forth by the TSA SDs. Section III (p. 5) of SD-02D  
30 refines the cybersecurity measures as follows:

1 The Owner/Operator must:

- 2 1) Identify the Owner/Operator's Critical Cyber Systems (Cybersecurity  
3 Measure A).
- 4 2) Implement network segmentation policies and controls designed to prevent  
5 operational disruption to the OT system if the IT system is compromised or  
6 vice versa (Cybersecurity Measure B).
- 7 3) Implement access control measures (part of account management),  
8 including for local and remote access, to secure and prevent unauthorized  
9 access to Critical Cyber Systems (Cybersecurity Measure C).
- 10 4) Implement continuous monitoring and detection policies and procedures that  
11 are designed to prevent, detect, and respond to cybersecurity threats and  
12 anomalies affecting Critical Cyber Systems (Cybersecurity Measure D).
- 13 5) Reduce the risk of exploitation of unpatched systems through the application  
14 of security patches and updates for operating systems, applications, drivers,  
15 and firmware on Critical Cyber Systems consistent with the  
16 Owner/Operator's risk-based methodology (Cybersecurity Measure E).
- 17 6) Develop and maintain a Cybersecurity Incident Response Plan to reduce the  
18 risk of operational disruption and increase the response to identify and  
19 manage an incident (Cybersecurity Measure F).
- 20 7) Develop a Cybersecurity Assessment Plan for proactively assessing and  
21 auditing cybersecurity measures. Submitted annually, the plan describes  
22 how the Owner/Operator will assess the effectiveness of cybersecurity  
23 measures (including controls and mitigations) (Cybersecurity Measure G).

#### 24 **1. Reasonableness Analysis**

25 This section demonstrates the reasonableness of the 2023 costs  
26 incurred and tracked in the GSRRMA to meet the requirements of the new  
27 TSA SDs. This section addresses the following:

- 28 1) Project/Program Work Need;
- 29 2) Summary of Costs; and
- 30 3) Demonstration of Reasonableness.

##### 31 **a. Project/Program Work Need**

32 PG&E performed increased work in 2023 to comply with TSA  
33 approved CIP Revision 2 and the TSA SD Cybersecurity Measures A, B,

1 D, E, F and G listed above. The following is a summary of the work  
2 performed during this period:

- 3 • Expansion of the Vulnerability Management program to account for  
4 cyber security measures that encompass patch management  
5 procedural controls, asset reviews, and testing to protect against  
6 ransomware attacks and other known threats to IT and OT systems.
- 7 • Deployment of supporting cybersecurity infrastructure including  
8 firewalls, on identified six field locations to improve network  
9 protection by implementing technology designed to prevent  
10 operational disruption to the OT systems or the IT systems.
- 11 • Development and implementation of the Critical Cyber System  
12 assets portal and the new discovery and asset management tool to  
13 improve asset ownership and detection in order to be able to  
14 monitor and respond to threats.
- 15 • Revisions and improvements were made to the Cybersecurity  
16 Incident Response Plan in accordance with TSA SD.

17 **b. Summary of Costs**

18 This section summarizes the costs incurred and recorded to the  
19 GSRRMA related to TSA SD compliance. The following sections  
20 provide a summary of the 2023 costs.

21 **1) Capital Expenditures**

22 PG&E incurred approximately \$4.0 million of capital  
23 expenditures in 2023 to support the implementation of the TSA SD  
24 requirements as shown in Table 6-3, PG&E describes the capital  
25 work performed in the sections below.

**TABLE 6-3**  
**2023 GAS PIPELINE SDs GSRRMA CAPITAL EXPENDITURES**  
**(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	MWC Code	2023 Recorded Costs
1	Build IT Applications and Infrastructure (MWC 2F)	\$3,950
2	Routine Spend Measurement and Control (M&C) Capital (MAT 75C)	33
3	Total Capital Expenditures	\$3,983

1                                   **a) Application Services: Development (MAT 2FA)**

2                                   To implement the requirements of the TSA SD,  
3                                   Cybersecurity Measures A as described above: Identify the  
4                                   Owner/Operator's Critical Cyber Systems, PG&E developed a  
5                                   TSA Critical Cyber System assets portal in the asset  
6                                   management program as part of the vulnerability management  
7                                   refresh project. This portal integrates several Gas assets  
8                                   repositories into a single system where all the supporting  
9                                   organizations can locate the TSA Critical Cyber Systems,  
10                                   owners, and operators. This is a foundational single source  
11                                   asset repository to enable implementation of the future  
12                                   vulnerability management compliance and governance  
13                                   programs. A single repository of the owners and operators of  
14                                   Critical Cyber Systems is essential to support the Cybersecurity  
15                                   Incident response plan. PG&E incurred approximately  
16                                   \$1.0 million of capital expenditures related to internal and  
17                                   external labor and contracts to complete the work.

18                                   **b) Build IT Applications and Infrastructure (MAT 2F#)**

19                                   In 2023, PG&E's Cybersecurity team began the deployment  
20                                   of a new discovery and asset management tool by installing  
21                                   discovery sensors at three of the locations identified in the 2022  
22                                   technical analysis. The discovery and asset management tool  
23                                   allows Cybersecurity to passively discover, classify and monitor  
24                                   Critical Cyber Systems assets. The discovery and asset  
25                                   management tool provides PG&E Cybersecurity with actionable  
26                                   information for vulnerabilities and security alerts in support of  
27                                   the TSA SD Cybersecurity Measure D as described above by  
28                                   implementing continuous monitoring and detection policies. The  
29                                   deployment of the discovery and asset management tool is a  
30                                   multiyear project that will continue to expand our scanning  
31                                   capabilities of our environment to increase our footprint that  
32                                   contains Critical Cyber Systems assets.

33                                   PG&E had identified six field locations where the Critical  
34                                   Cyber System was not completely protected. The project

1 installed the necessary supporting infrastructure including  
2 firewalls across the identified sites to ensure that the  
3 subsequent physical and logical security controls laid out in  
4 SD-02C Section III Cybersecurity Measure B, implement  
5 technology designed to prevent operational disruption to the OT  
6 system if the IT system is compromised or vice versa. PG&E  
7 incurred approximately \$2.9 million of capital expenditures  
8 related to materials, internal and external labor, and contracts to  
9 complete the IT application and infrastructure work listed above  
10 in this section.

11 **c) Routine Spend M&C Capital (MAT 75C)**

12 PG&E evaluated the different gas operational assets at  
13 facilities that require replacement or an upgrade due to the level  
14 of security a device is capable of. PG&E created an order in  
15 MAT 75C to record the cost of purchasing materials necessary  
16 to upgrade or replace vulnerable equipment. The M&C work  
17 directly supported TSA SD Cybersecurity Measure B described  
18 above for network segmentation controls and patch  
19 management. Due to the timing of when this work was started,  
20 \$0.03 million was recorded for project implementation costs and  
21 related overheads.

22 **2) Expense Costs**

23 PG&E also incurred approximately \$3.4 million of expense costs  
24 to support the implementation of TSA SD requirements as shown in  
25 Table 6-4. PG&E describes the expense work performed in the  
26 sections below.

**TABLE 6-4**  
**2023 GAS PIPELINE SDs GSRRMA EXPENSES**  
**(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	MAT Code	2023 Recorded Costs
1	Gas Expense (MAT AB#)	\$1,092
2	Infrastructure Services: Critical Cyber Assets (MAT JV2)	2
3	Maintain IT Applications and Infrastructure (MAT JV#)	2,064
4	Audit & Compliance (MAT KZD)	218
5	Total Expense	\$3,376

1                                    **a) Gas Expense (MAT AB#)**

2                                    PG&E’s Gas Operations teams recorded approximately  
3                                    \$1.1 million in internal and external labor and contracts related  
4                                    to the overall assessment and management of cybersecurity  
5                                    compliance to TSA SD requirements. To meet the compliance  
6                                    requirements of the SD, PG&E partnered with five different  
7                                    consultants and industry expert firms in cybersecurity and  
8                                    engineering to solicit their expertise in engineering and  
9                                    management consulting, cybersecurity consulting, and  
10                                    engineering design work to develop and receive approval of a  
11                                    TSA-approved CIP, the development of a Cybersecurity Incident  
12                                    Response plan, and the establishment of a Cybersecurity  
13                                    Assessment Program to assess the effectiveness of  
14                                    cybersecurity measures as required.

15                                    **b) Infrastructure Services: Critical Cyber Assets (MAT JV2)**

16                                    PG&E’s Cybersecurity team recorded approximately  
17                                    \$0.002 million of internal labor to support the TSA SD CIP; the  
18                                    vulnerability management refresh program was updated to  
19                                    support the TSA Critical Cyber System assets portal. Updates  
20                                    to the Vulnerability Management program process’ to align with  
21                                    the TSA SD including:

- 22                                    • Developed and documented new patch management  
23                                    process’ collaborated with compliance, system owners and  
24                                    functional area stakeholders to make sure all concerns were  
25                                    addressed.

- 1 • Review processed with stakeholders, created a weekly  
2 reporting that included compliance and system owner to  
3 provide progress and status. This included Weekly email  
4 communications, including updates on tooling to support  
5 vulnerability patch management automation.
- 6 • New TSA patch management requirements were integrated  
7 into the system owners, including IT and OT change  
8 management processes.
- 9 • Individual communication and training on the patch  
10 management process was provided to ensure the Operators  
11 and Owner understand the new TSA patch management  
12 compliance requirements.

13 **c) Maintain IT Applications and Infrastructure (MAT JV#)**

14 In 2023 PG&E's Cybersecurity team recorded  
15 approximately \$2.1 million of internal labor related to the overall  
16 management of cybersecurity compliance to TSA SD  
17 requirements, including the preparation and development of a  
18 Threat and Vulnerability Assessments as part of the vulnerability  
19 management refresh project. TSA approved CIP, the  
20 maintenance of a Cybersecurity Incident Response plan  
21 including monitoring and response to events on critical assets,  
22 and the maintenance of a Cybersecurity Assessment Program  
23 to assess the effectiveness of cybersecurity measures as  
24 required, and patch management amongst other activities  
25 required by the SD above.

26 **d) Audit & Compliance (MAT KZD)**

27 PG&E's Ethics & Compliance team recorded approximately  
28 \$0.2 million of internal labor related to the overall assessment  
29 and management of cybersecurity compliance to TSA SD  
30 requirements, including the preparation and development of a  
31 TSA-approved CIP, the development of a Cybersecurity Incident  
32 Response plan, and the establishment of a Cybersecurity  
33 Assessment Program to assess the effectiveness of

1                    cybersecurity measures as required, amongst other activities  
2                    required by the SD.

3                    **c. Demonstration of Reasonableness**

4                    The costs presented and adopted in PG&E's 2023 General Rate  
5                    Case did not include the work required to comply with federal gas  
6                    pipeline SDs as the requirements were not published at that time of the  
7                    filing and the associated implementation plan was not developed;  
8                    therefore, the recorded costs for this program are incremental. The new  
9                    TSA SDs require PG&E to review current activities against TSA's  
10                    directives for pipeline cybersecurity to assess cyber risks, identify any  
11                    gaps, and develop remediation measures. The work performed during  
12                    this period and the associated cost was necessary to comply with:

- 13                    • Implementation of expanded cyber security measures that  
14                    encompass procedural controls, technology measures, asset  
15                    reviews, and architectural standards to protect against ransomware  
16                    attacks and other known threats to IT and OT systems.
- 17                    • Enhancement and further development and implementation of the  
18                    Critical Cyber System assets portal implementation of new discovery  
19                    and asset management tool-maintain the Cybersecurity Incident  
20                    Response Plan to reduce the risk of operational disruption; and  
21                    requirements at a cost of approximately \$4.0 million in capital and  
22                    \$2.1 million in expense.

23                    **2. Cost Recovery**

24                    As described in Section D above, the 2023 recorded expenses and  
25                    capital expenditures for compliance with gas pipeline SDs related to the  
26                    GSRRMA were reasonable and prudent. These costs were incurred to  
27                    comply with federal regulations. Thus, the Commission should allow these  
28                    costs to be recovered at rates.

29                    **C. SED Directive: BTEX Content in Natural Gas (Witness: Karli Maeda)**

30                    On January 23, 2023, CPUC's Safety and Enforcement Division (SED)  
31                    issued a directive to PG&E to develop and implement a procedure for measuring  
32                    BTEX content in natural gas. BTEX is an acronym for benzene, toluene,  
33                    ethylbenzene, and total xylenes. The directive referenced and included a press

1 release by California State Senator Henry Stern citing a study by Lebel et al.<sup>4</sup>  
2 published in Environmental Science and Technology in October 2022.

3 Before the directive, PG&E had not been monitoring for BTEX as it was not  
4 required by any state or federal agency. Additionally, no safety thresholds for  
5 BTEX concentrations in natural gas have been defined by any entity. The SED  
6 directive instructed PG&E to “develop and implement a procedure for measuring  
7 BTEX content in PG&E’s natural gas stream at border receipt points, storage  
8 fields, producer sites, and transmission pipelines, to include, at minimum:

- 9 1) Threshold for maximum allowable concentration of BTEX in natural gas,  
10 commensurate with the Office of Environmental Health Hazard Assessment  
11 (OEHHA) safety standards and other existing safety standards;
- 12 2) Sampling method(s);
- 13 3) Sampling location(s) and the rationale for sampling at those locations;
- 14 4) A map indicating the sampling locations;
- 15 5) Analytical method(s);
- 16 6) Frequency;
- 17 7) Mitigating actions when threshold is breached; and
- 18 8) Recordkeeping practices.”<sup>5</sup>

19 After subsequent discussions with the California Air Resources Board, the  
20 California Environmental Protection Agency’s OEHHA and the SED, the  
21 program has evolved from the initial requirements. As of September 2023, work  
22 has shifted to gathering data from sample results for evaluation by the SED.

### 23 **1. Reasonableness Analysis**

24 This section demonstrates the reasonableness of the 2023 costs  
25 incurred and tracked in the GSRRMA to meet the requirements of the new  
26 SED directive. This section addresses the following:

- 27 1) Project/Program Work Need;
- 28 2) Summary of Costs; and

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4 Eric L. Lebel, et al., Environmental Science & Technology, Composition, Emissions, and Air Quality Impacts of Hazardous Air Pollutants in Unburned Natural Gas from Residential Stoves in California (Nov. 15, 2022), Environ. Sci. Technol. 2022 56 (22), 15828-15838, available at <https://doi.org/10.1021/acs.est.2c02581> (accessed Nov. 15, 2024).

5 CPUC letter from Terence Eng (Jan. 23, 2023), provided in Workpapers supporting this chapter.

1 3) Demonstration of Reasonableness.

2 **a. Project/Program Work Need**

3 PG&E is required to perform this increased work to comply with the  
4 SED directive as described above. The work that was completed in  
5 2023 was performed to meet those requirements.

6 **b. Summary of Costs**

7 This section summarizes the costs incurred and recorded to the  
8 GSRRMA related to the SED directive on BTEX. PG&E implemented  
9 an action plan and performed work at a recorded cost of approximately  
10 \$0.2 million in 2023 as shown in the workpapers supporting this chapter.  
11 The following sections provide a summary of the 2023 expense costs for  
12 those activities.

**TABLE 6-5**  
**2023 SED – BTEX MONITORING PLAN GSRRMA EXPENSES**  
**(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Cost Category	2023 Recorded Costs
1	Contracts	\$1
2	Labor External	113
3	Labor Internal	92
4	Other	1
5	Total Expense	\$206

13 **c. Demonstration of Reasonableness**

14 The costs presented and adopted in the 2023 General Rate Case  
15 did not include the work required to comply with the SED directive on  
16 BTEX; therefore, the recorded costs for this program are incremental.  
17 The work performed in 2023 and the associated costs were necessary  
18 for "ground-up" development of the BTEX monitoring program and to  
19 begin collection of the initial round of natural gas samples. Specific  
20 tasks performed are as follows:

- 21 1) Assessment and identification of sampling locations as prescribed in  
22 directive;
- 23 2) Evaluation and selection of sample analysis method and  
24 qualification of third-party laboratories;

- 1 3) Development of sample collection and transportation procedures;
- 2 4) Development of recordkeeping procedures and data collection
- 3 systems;
- 4 5) Providing training to PG&E personnel responsible for sample
- 5 collection;
- 6 6) Implementation of sampling procedure and collection of the natural
- 7 gas samples by PG&E personnel;
- 8 7) Analysis of gas samples by a third-party laboratory;
- 9 8) Sample transportation and logistics management by a third-party
- 10 contractor; and
- 11 9) Coordination with other California Investor-Owned Utilities.

12 The program utilizes a third-party contractor to aid in the completion  
13 of the aforementioned tasks. The contractor acts as an intermediary  
14 between PG&E and the testing laboratory, and is responsible for  
15 arranging delivery of the empty sample collection media to PG&E  
16 personnel, transportation of collected samples back to the laboratory for  
17 analysis, and reviewing the analysis reports for completeness.

18 PG&E performed the work described above per the SED directive at  
19 a cost of approximately \$0.2 million in 2023.

## 20 **2. Cost Recovery**

21 As described in Section C above, the 2023 recorded expenses for  
22 compliance with the SED directive on BTEX in the GSRRMA were  
23 reasonable and prudent. These costs were incurred to comply with state  
24 directive. Thus, the Commission should allow these costs to be recovered  
25 in rates.

## 26 **D. Conclusion**

27 As a result of this analysis, the recorded expenses of \$3.6 million and capital  
28 expenditures of \$4.0 million for a total of approximately \$7.6 million in 2023  
29 related to the GSRRMA are reasonable and PG&E should be afforded cost  
30 recovery in its rates.

**CHAPTER 7**  
**GAS STORAGE BALANCING ACCOUNT**

CHAPTER 7  
GAS STORAGE BALANCING ACCOUNT

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1  
2

## CHAPTER 7 GAS STORAGE BALANCING ACCOUNT

3 **A. Introduction**

4       The Gas Storage Balancing Account (GSBA) was originally requested by  
5 Pacific Gas and Electric Company (PG&E) and adopted by the California Public  
6 Utilities Commission (CPUC or Commission) in PG&E’s 2019 Gas Transmission  
7 and Storage (GT&S) rate case proceeding (2019 GT&S Rate Case).<sup>1</sup> In the  
8 2023 General Rate Case (GRC), the Commission approved the continued use of  
9 the GSBA.<sup>2</sup>

10       In the 2023 GRC decision, the Commission summarized the purpose of the  
11 GSBA as follows:

12       The Commission adopted the Gas Storage Balancing Account (GSBA) in  
13 the 2019 GT&S Rate Case. The GSBA is a two-way balancing account that  
14 tracks the revenues it receives based on approved rates, as well as the  
15 actual expenditures it incurs. To the extent expenditures exceed revenues,  
16 PG&E is entitled to recover these costs after submitting an application to the  
17 Commission. To the extent expenditures are less than revenues, the  
18 amount collected over revenues is returned to PG&E’s customers. It  
19 recognizes the significant regulatory uncertainty regarding gas storage  
20 regulations and requirements, and the resulting costs.

21       The Commission also added:

22       In this rate case, PG&E proposes continuing the GSBA based on ongoing  
23 uncertainties regarding gas storage regulations and costs, as well as  
24 uncertainties inherent in storage well work.<sup>3</sup>

25       The Commission originally approved the GSBA in the 2019 GT&S case  
26 finding PG&E’s request was reasonable and noting that there was “uncertainty  
27 of costs associated with PG&E’s implementation of the [California Department of  
28 Conservation, California Energy Management Division (CalGEM<sup>4</sup>)] regulations.  
29 While the regulations have been finalized, eliminating the single-point-of-failure  
30 design for over 80 injection and withdrawal wells could be a significant

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1 Application (A.) 17-11-009.

2 Decision (D.) 23-11-069.

3 D.23-11-069, pp. 170-171.

4 Effective January 1, 2020, the California Division of Oil, Gas, and Geothermal Resources (DOGGR) was renamed to CalGEM.

1 undertaking given the scope and nature of the rework required.”<sup>5</sup> The  
2 Commission required, however, that the GSBA be subject to a reasonableness  
3 review and directed that:

4 [i]n the next rate case, PG&E shall submit an analysis comparing the total  
5 recorded costs with the authorized amount, and the Commission will  
6 determine whether the transactions in the balancing account are  
7 reasonable.<sup>6</sup>

8 In the 2023 GRC decision, the Commission approved the continuation of the  
9 GSBA for the period 2023-2026, and PG&E will continue submitting an analysis  
10 comparing the total recorded costs with the authorized amounts giving the  
11 Commission the opportunity to review for reasonableness.

12 The GSBA was approved by the CPUC in Advice Letter (AL) 4836-G.<sup>7</sup> The  
13 purpose of the GSBA is to track and record actual expenses and capital  
14 expenditures over the 2023 General Rate Case cycle (2023 - 2026), compared  
15 to the revenue requirements based on the adopted expenses and capital  
16 expenditures for PG&E’s natural gas storage facilities, excluding Gill Ranch.

17 The purpose of this testimony is to demonstrate the reasonableness of costs  
18 incurred for 2023 that have been recorded in the GSBA applying the  
19 Commission’s standard of “comparing the total recorded costs with the  
20 authorized amount...”<sup>8</sup> As of December 31, 2023, PG&E has incurred  
21 \$9.0 million in expenses and \$115.7 million in capital expenditures related to the  
22 GSBA, compared to the adopted costs of \$18.3 million in expense and  
23 \$87.6 million in capital expenditures for 2023 as shown in workpapers  
24 supporting this chapter. This Application seeks reasonableness review, but not  
25 cost recovery, of these costs. The reason that we do not seek cost recovery  
26 here is that the GSBA is a two-way balancing account with an authorized  
27 revenue requirement in the 2023 GRC. Any overcollection or undercollection of  
28 the GSBA will presented in a separate proceeding at the conclusion of the 2023  
29 GRC rate case period.

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5 D.19-09-025, p. 95.

6 D.19-09-025, p. 95.

7 AL 4836-G/7089-E (Jan. 1, 2024).

8 D.19-09-025, p. 95.

1 **B. Project/Work Scope Overview**

2 This section summarizes the work performed for Gas Storage and the  
3 associated costs included in the GSBA.

4 Gas Storage expenses are recorded in Major Work Category (MWC) AH  
5 and include gas storage integrity assessments and reworks (Maintenance  
6 Activity Types (MAT) AH1 and AH2), as well as engineering and support (MATs  
7 AH3 and AH#).

8 Capital expenditures are recorded in MWC 3L and include gas storage well  
9 reworks and retrofits (MAT 3L3), drilling (MAT 3L1), and equipment replacement  
10 and installation costs (Repair and Replacements MAT 3L4 and Controls and  
11 Monitoring MAT 3L5).

12 The expense and capital work activities are described in more detail below.

13 **1. Expense Work**

14 Integrity assessments and reworks (MATs AH1 and AH2) are performed  
15 to meet the CalGEM and Pipeline and Hazardous Materials Safety  
16 Administration (PHMSA) well inspection requirements<sup>9</sup> and include:  
17 (1) storage wellbore surveys and assessments, including Gamma-Ray  
18 Neutron (GRN), Cement Bond Log (CBL), Noise/Temperature (N&T),  
19 Magnetic Flux Leakage (MFL), and Ultrasonic surveys and other similar  
20 assessments; (2) well pressure testing performed following conversion to  
21 Tubing and Packer (T&P); and (3) well assessments and other expenses  
22 that are completed as part of storage well integrity assessment rework  
23 projects including preparing and isolating wells for assessment activities.

24 Storage engineering and support (MATs AH3 and AH#) includes:  
25 (1) wellhead and associated well injection and withdrawal equipment  
26 maintenance within the Storage Asset Family boundary; and (2) expenses  
27 relating to program support and engineering projects, and emergency  
28 response.<sup>10</sup>

---

<sup>9</sup> California Code of Regulations (CCR) Tit. 14, § 1726.6 and American Petroleum Institute's (API) Recommended Practices (RP) 1171 adopted by PHMSA (49 Code of Federal Regulations § 192.7(b)(11)).

<sup>10</sup> This category of costs does not include costs for storage well reworks and integrity assessments that are recorded in MATs AH1 and AH2.

1       **2. Capital Work**

2               Drilling (MAT 3L1) includes all the work required for newly drilled or  
3               redrilling of wells, including engineering and design, site development,  
4               drilling and completion operations, new tubing and casing, gravel packs,  
5               downhole safety valves (DHSV), wellheads, and ancillary surface  
6               equipment.

7               Reworks and Retrofits (MAT 3L3) includes capital work required for gas  
8               storage well reworks, including engineering and design, workover  
9               operations, replacement DHSVs, gravel packs, tubing and casing, wellhead  
10              components, and replacing rework equipment.

11              Repair and Replacements (MAT 3L4) and Controls and Monitoring  
12              (MAT 3L5) include: (1) equipment replacement not associated with well  
13              reworks, rework equipment and DHSVs, gravel pack, tubing and casing, and  
14              wellhead components; (2) replacement of uphole safety valves, well  
15              pipelines between wellheads and gas processing and compression station  
16              equipment and sand inspection valves; (3) installation of monitoring and  
17              control devices such as equipment for annular monitoring, injection  
18              measurement and replacement of well controls and valves for injection and  
19              withdrawal operation; and (4) costs for overflow protection.<sup>11</sup>

20       **C. Reasonableness Analysis**

21              This section provides a reasonableness analysis of the 2023 recorded costs  
22              in the GSBA and includes the following sections:

- 23              1) Project/Program Work Need;
- 24              2) Summary of costs; and
- 25              3) Demonstration of reasonableness.

26       **1. Project/Program Work Need**

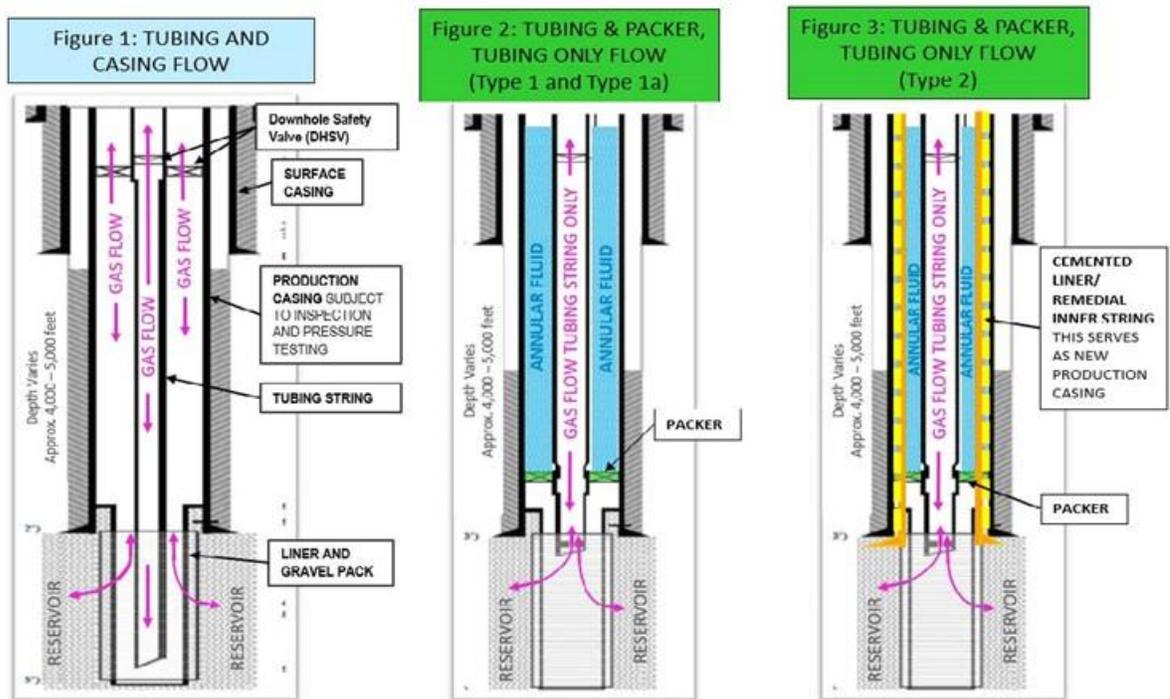
27              PG&E's natural gas storage programs assess and mitigate threats to the  
28              gas storage asset family and provides coordinated management and  
29              operation of these assets. In 2023, the work executed in this program was  
30              primarily driven by CalGEM regulations to inspect and convert wells to dual

---

<sup>11</sup> Due to the logistics of project execution, controls and monitoring activities costs that were forecast under MAT 3L5 may instead be reflected in the actual costs for MAT 3L4 pipe replacement projects. These costs are not double counted.

1 barrier construction and to mitigate a single point of failure risk in  
2 accordance with CCR, Title 14, § 1726, et. seq.<sup>12</sup> The construction of wells  
3 in PG&E's gas storage facilities is similar, yet the diameters, dimensions,  
4 and materials vary, based on design and operating parameters. A diagram  
5 and description of PG&E's typical storage wells are provided in Figure 7-1  
6 below.

**FIGURE 7-1  
PG&E TYPICAL WELL CONSTRUCTION**



7 Figure 1 shows PG&E's traditional well configuration that includes gas  
8 flow in both the tubing and casing annuli. The production casing is subject  
9 to inspection under CalGEM regulations and in order to perform direct  
10 inspections and pressure tests in this configuration a rig is required to  
11 remove the tubing string, downhole safety valves, and any other downhole  
12 equipment installed.

<sup>12</sup> California Department of Conservation, Requirements for California Underground Gas Storage Projects, available at: <https://www.conservation.ca.gov/index/Documents/Final%20Statement%20of%20Revisions.pdf> (accessed Nov. 15, 2024).

Figure 2 shows the converted state to meet dual barrier construction requirements per CalGEM regulations, Section 1726.5. Gas flow is restricted to a smaller diameter tubing string only and the casing-tubing annulus space is sealed off with a packer element and fluid. This configuration is the same for both type 1 and type 1a configurations, where type 1a has a new gravel pack and liner installed during the conversion and rework activity.

Figure 3 shows the converted state of the well in a type 2 configuration. In this type, a new inner string liner is cemented in and the existing production casing is no longer considered a barrier. The new liner is subject to inspection and pressure testing requirements after installation.

## 2. Summary of Costs

The tables below compare the 2023 adopted costs to recorded costs for the program MATs broken down by expense (Table 7-1) and capital expenditures (Table 7-2).

**TABLE 7-1  
COMPARISON BETWEEN GSBA ADOPTED AND RECORDED EXPENSES  
(THOUSANDS OF DOLLARS)**

Line No.	Year	WELL – Integrity Assessments & Reworks (MATs AH1, AH2)	WELL – Engineering and Support (MATs AH3, AH#)	Total Expenses
1	2023 Adopted	\$13,234	\$5,098	\$18,332
2	2023 Recorded	6,543	2,472	9,015
3	Total Expense Difference (Recorded Less Adopted)	\$(6,691)	\$(2,626)	\$(9,317)

**TABLE 7-2  
COMPARISON BETWEEN GSBA ADOPTED AND RECORDED CAPITAL EXPENDITURES  
(THOUSANDS OF DOLLARS)**

Line No.	Year	WELL – Reworks and Retrofits, Drilling (MATs 3L3, 3L1)	WELL – Repair & Replace and Controls & Monitoring (MATs 3L4, 3L5)	Total Capital Expenditures
1	2023 Adopted	\$86,193	\$1,437	\$87,630
2	2023 Recorded	113,209	2,459	115,667
3	Total Capital Difference (Recorded less Adopted)	\$27,016	\$1,022	\$28,037

1       **3. Demonstration of Reasonableness**

2               In 2023, PG&E spent approximately \$9.3 million below the total adopted  
3 expenses and approximately \$28.0 million above the total adopted capital  
4 expenditures compared to what was adopted in the 2023 General Rate  
5 Case. This section begins with an overview of the relevant changes in  
6 legislative and regulatory requirements that have occurred for natural gas  
7 storage. It then describes the expense and capital costs by MAT for the gas  
8 storage programs and explains why, for each MAT, the costs are  
9 reasonable.

10       **a. Overview of Changes in Legislative and Regulatory Requirements**

11               After PG&E filed the 2019 GT&S Rate Case in 2017, major changes  
12 occurred to the legal and regulatory landscape governing natural gas  
13 storage. Table 7-3 provides a summary of key legislative and regulatory  
14 changes that occurred before and after the 2019 GT&S Rate Case and  
15 the programs impacted, as applicable. Note, Table 7-3 is a high-level  
16 summary and does not describe each aspect of the regulations or  
17 legislation, nor does it describe in detail PG&E’s ongoing work with  
18 regulatory agencies to develop appropriate implementation plans  
19 consistent with the regulations. Events which occurred before the 2019  
20 GT&S Rate Case filing are included for context and background  
21 regarding subsequent legal and regulatory developments.

22               Table 7-3 highlights the evolving regulatory and legislative  
23 landscape that has directly impacted the costs incurred by PG&E for its  
24 natural gas storage facilities to comply with these regulations and  
25 statutes.

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
1	October 2015	Leak detected at Aliso Canyon well in southern California	<ul style="list-style-type: none"> <li>PG&amp;E responds to various data requests regarding its underground storage assets from the CPUC, DOGGR,<sup>(a)</sup> and others.</li> </ul>
2	January 2016	Governor Brown Issues State of Emergency and CalGEM issues emergency regulations for California underground storage	<ul style="list-style-type: none"> <li>PG&amp;E implements daily leak survey, increases frequency for valve testing, and develops the first version of its Risk and Integrity Management Plan (R&amp;IMP).</li> </ul>
3	February 2016	PHMSA publishes Advisory Bulletin for Underground Storage	<ul style="list-style-type: none"> <li>PG&amp;E begins process of revising R&amp;IMP as well as evaluating the impact of the DOGGR dual barrier requirement to deliverability.</li> </ul>
4	July 2016	CalGEM releases draft of Permanent Regulations for comment indicating dual barrier construction requirements for wells	
5	September 2016	California Senate Bill 887 signed into law requires Emergency Regulations to remain effective until permanent regulations are established by CalGEM.	
6	December 2016	PHMSA issues Interim Final Rule for Underground Storage, effective January 2017	
7	March 2017	California Air Resource Board (CARB) releases new Oil and Gas (O&G) Regulations, including requirements for Storage operators to install ambient monitoring systems, perform daily or continuous leak survey at wellheads, and repair any identified leaks expeditiously <sup>(b)</sup>	Repair and Replacements and Controls and Monitoring (MATs 3L4 and 3L5): Ambient monitoring at all three storage facilities. Projects executed in 2019 and 2020 addressed valve replacement

**TABLE 7-3  
 UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
 REGULATION TIMELINE  
 OCTOBER 2015 TO MAY 2023  
 (CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
8	November 2017	PG&E files 2019 GT&S Rate Case	<ul style="list-style-type: none"> <li>• <u>Well Construction</u>: Dual barrier (T&amp;P) construction requirements, assumed 24-month timeline for conformance for GT&amp;S filing (MAT 3L3).</li> <li>• <u>GRN Testing</u>: GRN annually for every well (MAT AH1).</li> <li>• <u>Casing Inspections</u>: Casing wall thickness inspections every two years (MAT AH1/AH2).</li> <li>• <u>Pressure Testing</u>: Pressure Testing to occur with inspection; PG&amp;E's plan included a 5-year cycle that would begin in 2024 outside of rate case window (MAT AH1/AH2).</li> <li>• <u>Emergency Response</u>: Emergency Response plans for wells with training (MAT AH3).</li> <li>• PG&amp;E assumed 11 new wells would be drilled between 2019 and 2020 (MAT 3L3). New wells drilled to offset capacity loss from T&amp;P conversion (MAT 3L3/3L1)</li> </ul>

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023  
(CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
9	February 2018	First Revised text of DOGGR proposed rules released for comment	<ul style="list-style-type: none"> <li>• <u>Well Construction</u>: Dual barrier construction over a 7-year period with 10 percent of wells addressed in Year 1 and 15 percent per year thereafter through 2025 (MAT 3L3).</li> <li>• <u>GRN Testing</u>: Conduct GRN testing as needed (MAT AH1).</li> <li>• <u>Casing Inspections</u>: Wells must have a casing wall thickness inspection at least every two years (MAT AH1/AH2).</li> <li>• <u>Pressure Testing</u>: Pressure testing of the production casing shall be performed at least every two years (MAT AH1/AH2).</li> <li>• <u>Emergency Response</u>: Emergency Response plans for wells with training (MAT AH3).</li> <li>• Operators must file Risk Management Plans with CalGEM for review and approval</li> </ul>
10	March 2018	Second Revised text of proposed CalGEM draft rules released	
11	June 2018	Final Underground Storage Rules from CalGEM released, effective October 1, 2018 (CalGEM Final Rules)	
12	December 2018	PG&E served 2019 GT&S Reply Briefs	<ul style="list-style-type: none"> <li>• Adjusted the forecast for 7-year construction implementation per CalGEM Final Rules to meet the T&amp;P construction requirements: 10 percent of wells in first year, 15 percent of wells every year after through 2025 (MAT 3L3).</li> </ul>

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023  
(CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
13	March 2019	PG&E submits its Underground Storage R&IMP and accompanying field specific Well Risk Evaluation and Construction Standard Implementation Plan (2019 Implementation Plan) to CalGEM for review and approval	<p>2019 Implementation Plan includes individual well risk review details and planned timelines for implementing the CalGEM Final Rules. PG&amp;E proposes:</p> <ul style="list-style-type: none"> <li>• Risk based alternate frequency for casing inspection based on condition; baseline concurrent with conversion to T&amp;P rig activities (MAT 3L3 and AH1)</li> <li>• Use of thru tubing logging every 24-months for surveillance of condition (MAT AH1).</li> <li>• 5-year alternate frequency for post converted pressure test once wells have been converted (MAT AH1).</li> <li>• Plan for conversion to dual barrier aligned with 7-year schedule (MAT 3L3).</li> </ul>
14	March 2019	PG&E begins 2019 Well Rework season inclusive of conversion to dual barrier construction to achieve 10 percent of wells at each facility to be in compliance with CalGEM Final Rules	
15	September 2019	2019 GT&S Rate Case decision (D.19-09-025) issued.	<ul style="list-style-type: none"> <li>• Imputed well units in decision are less than those required to maintain compliance with CalGEM's 7-year dual barrier construction schedule.</li> </ul>
16	October 2019	California Senate Bill 463 Signed into law by Governor Newsom	<p>Includes requirements for:</p> <ul style="list-style-type: none"> <li>• Chemical inventory of materials associated with wells</li> <li>• Reportable leaks criteria, well control, investigation</li> </ul>

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023  
(CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
17	February 2020	PHMSA finalizes and publishes in Federal Register its UGS Final Rule	<ul style="list-style-type: none"> <li>• Operators must establish comprehensive written Integrity Management Program, adopting API RP 1171 as written (MATs AH#, AH1, AH2, 3L3, 3L4, 3L5).</li> <li>• Complete baseline inspections of wells within 7 years (MATs 3L3 and AH1).</li> <li>• Re-assessment frequency not to exceed 7 years (MATs 3L3/AH1/AH2).</li> </ul>
18	September 2020	CalGEM issues PG&E a letter of Interim Testing Requirements	<ul style="list-style-type: none"> <li>• Stipulates MFL/USIT will be required to have a downhole inspection by April 1, 2021, on select wells determined by CalGEM working with PG&amp;E.</li> <li>• Stipulates additional set of wells must have an MFL/USIT inspection by October 1, 2022 (MATs 3L3 and AH1).</li> <li>• Any wells not inspected between October 1, 2018 - October 1, 2020 are disallowed from use until inspection is complete and approved for use by CalGEM.</li> <li>• Wells must be pressure tested by April 1, 2021 or removed from service unless CalGEM approves a longer minimum testing frequency (MATs 3L3 and AH1).</li> </ul>
19	October 2020	PG&E responds to CalGEM indicating concern regarding impact to near term and upcoming system reliability with the testing schedule required in Interim Testing Requirements	
20	December 2020	CalGEM directs PG&E to submit a revised implementation plan with an accelerated inspection schedule	

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023  
(CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
21	January 2021	PG&E submits revised implementation plan to CalGEM (2021 Revised Implementation Plan)	<ul style="list-style-type: none"> <li>• Plan accelerates workplan to convert wells to dual barrier by one year from 2025 to 2024. All wells will have received a baseline MFL inspection by 2023. (MATs 3L3 and AH1)</li> <li>• Plan maintains performing thru-tubing logging every 24-months to surveil for changes between inspections performed via rig. (MAT AH1)</li> <li>• Plan proposes performing pressure testing following conversion on a 5-year cycle. (MAT AH1)</li> <li>• Maintains system deliverability until mitigations can be put in place (i.e., cross compression, drilling new wells). (MATs 3L1 and 3L3)</li> </ul>
22	June 2021	CalGEM approves PG&E's 2021 Revised Implementation Plan; re-inspection interval of wells remains outstanding.	<ul style="list-style-type: none"> <li>• CalGEM requires PG&amp;E to accelerate the planned 7-year conversion coupled with casing assessments by one year and will complete conversions by 2024 (MAT 3L3).</li> <li>• CalGEM requires PG&amp;E to increase frequency on thru-tubing surveys to annually on wells (MAT AH1).</li> <li>• CalGEM requires PG&amp;E to perform pressure testing following conversion every 24 months (MAT AH1).</li> <li>• The reinspection schedule/frequency remains pending approval decision from CalGEM. PG&amp;E proposed risk based frequency (MATs 3L3/AH1/AH2).</li> </ul>

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023  
(CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
23	November 2021	PHMSA publishes FAQs for UGS Final Rule; revision to FAQ issued in December 2021	<ul style="list-style-type: none"> <li>• Operators must establish comprehensive written Integrity Management Program that are risk-based (MATs AH#, AH1, AH2, 3L3, 3L4, 3L5).</li> <li>• Complete baseline integrity inspections of wells within 7 years using one or more downhole integrity inspection method (MATs 3L3 and AH1).</li> <li>• Re-assessment frequency not to exceed 7 years (MATs 3L3/AH1/AH2)</li> <li>• Downhole integrity inspections have no prescribed maximum interval; Operators must develop and implement a process that includes a risk analysis and integrity assessment to schedule subsequent downhole integrity inspections (MATs 3L3/AH1/AH2).</li> </ul>
24	January 2023	Submittal of well specific reinspection plan to CalGEM	<ul style="list-style-type: none"> <li>• The well specific schedule plan for well reinspection submitted to CalGEM applying PG&amp;E's risk based methodology</li> </ul>
25	April 2023	CalGEM Response Letter	<ul style="list-style-type: none"> <li>• CalGEM requested PG&amp;E resubmit a new inspection plan; CalGEM indicated their expectation was for a plan that was less than 6 years.</li> </ul>

**TABLE 7-3  
UNDERGROUND GAS STORAGE SIGNIFICANT EVENT, LEGISLATION AND  
REGULATION TIMELINE  
OCTOBER 2015 TO MAY 2023  
(CONTINUED)**

Line No	Date(s)	Event(s)	Impact to Storage Asset Family and/or Program MAT
26	May 2023	PG&E Re-Submittal of well specific reinspection plan to CalGEM	<ul style="list-style-type: none"> <li>PG&amp;E submitted a plan with additional well specific information and detailed the deliverability and risk limitations of shortening the reinspection cycle from PG&amp;E's proposed risk-based schedule.</li> </ul>
27	December 2023	PG&E Completed Baseline Well Inspections	<ul style="list-style-type: none"> <li>PG&amp;E completed baseline integrity inspections of underground natural gas storage wells at McDonald Island and Los Medanos; Pleasant Creek is pending a sale.</li> </ul>
28	December 2023	SB 463 – Well Chemical Inventory	<ul style="list-style-type: none"> <li>PG&amp;E submitted first chemical inventory of materials associated with wells</li> </ul>
29	January 2024	PG&E – Submittal Second Round testing schedule modification to CalGEM	<ul style="list-style-type: none"> <li>PG&amp;E submitted to CalGEM first second testing schedule extension for 10 of the 2023 Storage Workover Wells to carry over to 2024 (8) at McDonald Island and (2) at Los Medanos. An estimation of the reliability implications is provided. This submittal also contains the Well Integrity Databook describing each well's inspection results in detail.</li> </ul>
<p>(a) DOGGR is the California Department of Conservation's Division of Oil, Gas and Geothermal Resources, which was the predecessor agency to CalGEM.</p> <p>(b) Consistent with D.19-09-025, p. 94, the GSBA excludes costs associated with CARB leak survey and repair costs, which are not recorded in storage MATs and are reflected in the Gas Statutes Rules and Regulations Memorandum Account.</p>			

- 1           **b. Expense: WELL – Integrity Assessments and Reworks (MATs AH1,**
- 2           **AH2)**
- 3           The Commission adopted costs of \$13.2 million for integrity
- 4           assessments and reworks for 2023 (\$9.8 million in MAT AH1 and

1 \$3.4 million in MAT AH2). The actual cost incurred for 2023 to meet  
 2 CalGEM regulations for integrity assessments and reworks was  
 3 \$6.5 million.<sup>13</sup> AH2 did not have any recorded costs in 2023.

4 The primary driver for the variance in costs between adopted and  
 5 actual is the difference in types and number of integrity assessments  
 6 and reworks completed. Table 7-4 below provides the adopted units of  
 7 work for each type of integrity assessment survey or test and the actual  
 8 units of work performed for each survey or test in 2023 and is followed  
 9 by a description of the reason for the unit variances.

**TABLE 7-4  
 INTEGRITY ASSESSMENTS AND REWORKS 2023 ADOPTED AND RECORDED UNITS**

Line No.	Year	Barrier Inspection/Casing Condition Surveys			
		Rework Well Logging Suite: MFL, USIT, Gyro, Caliper, CBL, GRN	Thru-Tubing (non-Rework wells)	N&T Surveys	Post-Converted Pressure Test
1	2023 Adopted	26	105	105	32
2	2023 Recorded	21	103	103	27
3	Variance	-4	-2	-2	-5

10 1) Barrier Inspection/Casing Condition Surveys: Multiple types of  
 11 surveys are performed that allow for evaluation and inspection of  
 12 casing condition in wells to detect features that may require  
 13 remediation during the inspection of a well with a rig present. It is  
 14 worthwhile to note that direct surveys can only be performed with a  
 15 rig as the rig is needed to temporarily remove the wellhead and the  
 16 tubing string from the wellbore so that the survey tools can be in  
 17 direct contact with the casing for inspection. Thru-tubing surveys  
 18 are another form of casing inspection tools that can be run outside  
 19 of a rework (i.e., without a rig) to monitor for change in casing  
 20 condition. This is a newer technology CalGEM has accepted and  
 21 required the use of the thru-tubing as an interim inspection tool while

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<sup>13</sup> Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

1 they evaluate the frequency with which direct surveys should be  
2 performed.

3 The Commission adopted units totaling 131 wells in 2023 to be  
4 inspected with barrier inspection/casing condition survey suites. PG&E  
5 completed 124 barrier inspections/casing condition surveys (both direct  
6 and thru-tubing) during that time period, including 21 rework logging  
7 suites (multiple log types) during a well rework<sup>14</sup> with a rig and 103  
8 barrier inspections/casing condition surveys using thru-tubing tools to  
9 inspect wells outside of a well rework in accordance with CalGEM  
10 requirements. See Table 7-3, Row 22, regarding CalGEM  
11 requirements.<sup>15</sup>

12 In their June 2021 letter, CalGEM adopted PG&E's proposal of  
13 performing thru-tubing assessments and requires PG&E to perform this  
14 logging annually on wells. Thru-tubing assessments are: (1) minimally  
15 invasive to the well asset; (2) have a reduced operational risk by only  
16 taking a day to perform versus anywhere between seven to sixty plus  
17 days for a rig inspection; (3) can provide surveillance to changes in  
18 condition so the well can be monitored year over year; and (4) are less  
19 expensive than a rig rework. PG&E was able to utilize thru-tubing to  
20 perform substantially more assessments while maintaining field  
21 deliverability and canvassing the well population for any signs of  
22 immediate threats that would necessitate mobilization of a rig to  
23 investigate further.

24 Figure 7-2 below shows a rig mobilized with some of the ancillary  
25 equipment necessary to perform direct casing assessment and pressure  
26 test of the production casing and retrofit/convert the well to dual barrier  
27 (T&P) in accordance with CalGEM regulations. Multiple wells adjacent  
28 to the well being worked on are taken out of service as a safety measure

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**14** The suite of logging tools as required by CalGEM permit include: MFL, USIT, Gyro, Caliper, GRN, and CBL to assure integrity for the wells; each suite per well is considered a unit.

**15** Thru-tubing survey tools do not require rig mobilization and can be performed while the well is in service. The use of thru-tubing tools is part of PG&E's 2021 Revised Implementation Plan, which was approved by CalGEM on June 15, 2021, adopting an annual frequency.

1 given the close spacing of the wellheads of 25'-0" on center. A rig may  
2 be on a given well from anywhere from seven to sixty plus days  
3 depending on the scope of work and results encountered. Figure 7-3  
4 provides an additional view where two rigs are mobilized,  
5 simultaneously completing well projects on the north side of the Turner  
6 Cut Station at McDonald Island.

**FIGURE 7-2**  
**RIG MOBILIZED TO PERFORM ASSESSMENT AND CONVERSION**



**FIGURE 7-3  
TWO RIGS MOBILIZED AT TURNER CUT STATION WELL PROJECT**



1                    Figure 7-4 below shows a thru-tubing wireline being run on a well for  
2                    inspection purposes. To perform a wireline thru-tubing, only a conveyor  
3                    truck is needed, and this assessment can be accomplished in a day.  
4                    While not without operational risk to run, the duration and extent of  
5                    running a thru-tubing is much less risky than deploying a rig for a full  
6                    well intervention.

**FIGURE 7-4  
WIRELINE THRU-TUBING ON A WELL**



- 1           2) N&T Surveys: These surveys are performed annually on all wells to  
2           inspect for anomalies that may indicate downhole barrier leakage. If  
3           a sound and/or temperature anomaly is detected during the survey,  
4           it may indicate the presence of a leak. In 2023, the Commission  
5           adopted units totaling 105 N&T surveys and PG&E conducted  
6           103 N&T surveys. The variance in units is due to wells being  
7           plugged and abandoned which resulted in fewer N&T surveys being  
8           required.
- 9           3) Post-Converted Pressure Test: These pressure tests validate the  
10          mechanical integrity of the casing to CalGEM's requirements (see  
11          Table 7-3, Row 22). In 2023, the Commission adopted units totaling  
12          32 Post Converted Pressure Test surveys and PG&E conducted  
13          27 Post Converted Pressure Test surveys. The variance in units is  
14          due to wells being plugged and abandoned which resulted in fewer  
15          pressure tests being required.

1 **c. Expense: WELL – Engineering and Support (MAT AH3, AH#)**

2 The Commission adopted a cost of \$2.8 million for MAT AH3 and  
3 \$2.3 million for MAT AH# for engineering and support costs to execute  
4 the various storage integrity management programs in 2023. The actual  
5 expense costs incurred for 2023 were \$2.5 million.

6 Work in MAT AH3 includes: (1) inspection for non-high  
7 consequence area (HCA) pipe located in the storage fields, and  
8 (2) support and engineering for expense projects, such as integrity  
9 management, data analysis software, and gas storage emergency site  
10 plans and support. In 2023, approximately \$2.5 million<sup>16</sup> was recorded  
11 in MATs AH3 and AH# in support of the integrity management program  
12 engineering. The variance between the adopted expense is due to the  
13 non-HCA hydrotest pipe projects being rescheduled to maintain system  
14 capacity amidst outage challenges associated with ongoing well work  
15 projects.

16 **d. Capital: WELL – Reworks and Retrofits, Drilling (MATs 3L3, 3L1)**

17 The Commission adopted costs of \$66.3 million for reworks and  
18 retrofits and drilling in MAT 3L3 for 2023. The actual costs incurred for  
19 2023 were \$89.2 million.<sup>17</sup> The primary driver for the variance in costs  
20 from adopted to actual is the difference in the mix of work required  
21 related to capacity needs and to comply with CalGEM’s well  
22 construction standard annual target.

23 The capital expenditures recorded in MATs 3L3 and 3L1 are  
24 comprised of reworks and retrofits and drilling new wells. The 2023  
25 GRC adopted a work pace of approximately 19 well units reworked and  
26 three wells to be drilled in 2023. PG&E performed 21 well rework  
27 projects and drilled 1 new wells in 2023, for the reasons explained  
28 below.

29 **1) Drilling (MAT 3L1)**

30 PG&E began a drilling program in 2023 as proposed in the 2023  
31 GRC to address replacement capacity needs resulting from

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16 Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

17 Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

CalGEM’s regulations and requirements to convert wells to T&P. PG&E completed the drilling of one well in 2023 and started a second well that was ultimately completed in 2024. PG&E incurred capital expenditures of \$24.0 million in MAT 3L1 related to the engineering, planning, and drilling of these 2 replacement wells in 2023.<sup>18</sup>

**2) Reworks and Retrofits (MAT 3L3)**

PG&E performed 21 well rework projects in 2023 in compliance with CalGEM’s well construction standard annual targets.<sup>19</sup> The 21 well rework projects included three plug and abandonment projects and were performed in accordance with the 2021 Implementation Plan at the McDonald Island, Los Medanos, and Pleasant Creek gas storage facilities, as indicated in Table 7-5.

**TABLE 7-5  
GSBA RECORDED WELL REWORK UNITS AND COSTS  
(THOUSANDS OF DOLLARS)**

Line No.	WELL – Reworks and Retrofits	2023 Recorded
1	McDonald Island	17
2	Los Medanos	4
3	Pleasant Creek	0
4	Total Well Units	21
5	Total Costs (MAT 3L3)	\$89,214

- McDonald Island: PG&E completed inspection and conversion work on 17 wells at the McDonald Island facility in 2023.
- Los Medanos: PG&E completed inspection and conversion work on 4 wells at the Los Medanos storage facility in 2023 and plans to continue this work as a part of its proposal to retain the Los Medanos facility.

<sup>18</sup> Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

<sup>19</sup> 14 CCR § 1726.3(d)(1) and (5) requires a minimum of 10 percent in Year 1 and 15 percent in each subsequent year of the non-conforming wells be brought into compliance with the dual barrier requirements of 14 CCR § 1726.5. This requirement is per facility. CalGEM recognizes abandonment of wells to comply with the construction standard.

- 1 • Pleasant Creek: PG&E did not complete any rework activity at  
2 the Pleasant Creek storage facility in 2023.<sup>20</sup>

3 Table 7-6 indicates the forecast type of rework activity adopted  
4 for the 19 well reworks and no new wells, compared to the actual  
5 rework activity, required for the 21 well rework projects.

**TABLE 7-6  
GSBA RECORDED UNITS PERFORMED BY ACTIVITY TYPE VS ADOPTED**

WELL – Reworks and Retrofits and Drilling (MAT 3L3, 3L1)						
Line No.	Year	Well Rework Projects <sup>(a)</sup>	Plug and Abandon	Pending Completion – Awaiting Permit	Drilling New Wells <sup>(b)</sup>	
1	2023 Adopted	19				
2	2023 Recorded	21	3	4	1	

- (a) Well rework units reflect the total number of well rework projects initiated in a program year. This includes wells that were plugged and abandoned. Of the 21 projects, 14 wells were converted to T&P, 3 were plugged and abandoned, and 4 wells remain pending completion awaiting supplemental permits from CalGEM).
- (b) Drilling new wells units reflect completed new well projects. PG&E completed the drilling of 1 new well in 2023 and incurred construction costs associated with drilling a second well that was not completed until 2024; since this second drilled well was not completed in 2023 it is not reflected in the count.

6 **e. Capital: WELL – Repair and Replacements and Controls and**  
7 **Monitoring (MATs 3L4 and 3L5)**

8 The Commission adopted \$1.4 million in costs for repair and  
9 replacements and controls and monitoring for 2023 in MATs 3L4 and  
10 3L5. The actual costs incurred for 2024 were \$2.4 million.<sup>21</sup> The  
11 primary driver for the variance in costs from adopted to actual is project  
12 timing and additional closeout costs associated with the pipeline  
13 replacement work.

<sup>20</sup> Following the issuance of D.19-09-025 that allowed for the sale or decommissioning of the Pleasant Creek facility, PG&E did not complete retrofit work to T&P at the facility during the transition to decommission and/or sell. PG&E filed an 851 Application July 2023 for the sale of the Pleasant Creek Facility; at the time of this filing a decision on the sale remains pending from the Commission.

<sup>21</sup> Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

1                   **1) Repair and Replacements (MAT 3L4)**

2                   The Commission did not adopt costs for repair and  
3                   replacements in MAT 3L4 for 2023, however, actual costs incurred  
4                   were \$2.3 million.<sup>22</sup> The recorded costs in MAT 3L4 relate to the  
5                   Turner Cut Station south side pipeline replacement project closeout  
6                   costs at the McDonald Island facility that completed construction in  
7                   2022.

8                   **2) Controls and Monitoring (MAT 3L5)**

9                   The Commission adopted \$1.4M for controls and monitoring for  
10                  2023 in MAT 3L5 and actual costs incurred were approximately  
11                  \$154,000.<sup>23</sup> The recorded costs in MAT 3L5 include the close out  
12                  costs and adjustments related to the annular monitoring installation  
13                  work (i.e. SCADA on wells). CalGEM regulations require continuous  
14                  annular pressure monitoring, such as SCADA, to be installed on all  
15                  well casing annuli (See Table 7-3, line 11). PG&E completed  
16                  closeout work in this MAT in 2023.

17 **D. Cost Recovery**

18                  As described above in Section C, the 2023 recorded expenses and capital  
19                  expenditures related to the GSBA for gas storage integrity assessments and  
20                  reworks, engineering and support to execute the various storage integrity  
21                  management programs, well reworks, engineering and planning for drilling, as  
22                  well as equipment installation and replacement costs were consistent with  
23                  regulatory and legislative requirements and were reasonable and prudent.  
24                  Thus, the Commission should find the 2023 recorded costs reasonable and  
25                  allow these costs to be adjusted in rates through the Annual Gas True-Up  
26                  pursuant to Preliminary Statement EJ.

27 **E. Conclusion**

28                  Based on the demonstration above, PG&E requests that the Commission  
29                  find that:

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<sup>22</sup> Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

<sup>23</sup> Workpapers Supporting Chapter 7 – Gas Storage Balancing Account.

- 1        1) The 2023 recorded expenses of approximately \$9.0 million related to the  
2            GSBA are reasonable;
- 3        2) The 2023 recorded capital expenditures of approximately \$115.6 million  
4            related to the GSBA are reasonable;
- 5        3) Rates be adjusted for the difference between recorded and adopted  
6            expenses of approximately \$9.3 million through the Annual Gas True-Up  
7            pursuant to Preliminary Statement EJ; and
- 8        4) Rates be adjusted for the difference between recorded and adopted capital  
9            expenditures of approximately \$28.0 million through the Annual Gas  
10          True-Up pursuant to Preliminary Statement EJ.

**CHAPTER 8**  
**CLIMATE ADAPTION VULNERABILITY ASSESSMENT**  
**MEMORANDUM ACCOUNT**

CHAPTER 8  
CLIMATE ADAPTION VULNERABILITY ASSESSMENT MEMORANDUM  
ACCOUNT

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## CHAPTER 8

### CLIMATE ADAPTION VULNERABILITY ASSESSMENT MEMORANDUM ACCOUNT

4 **A. Introduction**

5 This chapter supports Pacific Gas and Electric Company's (PG&E) request  
6 to recover costs incurred in 2023 for climate adaptation vulnerability assessment  
7 activities, as recorded in the Climate Adaption Vulnerability Assessment  
8 Memorandum Account (CAVAMA). In total, PG&E requests \$1.1 million in  
9 expense. There are no capital costs associated with this request.

10 **B. Climate Adaptation Vulnerability Assessment Memorandum Account**

11 **1. Background**

12 On April 26, 2018, in recognition of the increasing impacts of  
13 climate-driven natural hazards on California's energy system, the California  
14 Public Utilities Commission (CPUC or Commission) initiated Rulemaking  
15 (R.) 18-04-019 to integrate climate change adaptation matters in relevant  
16 Commission proceedings. Phase I of the proceeding focused on  
17 investor-owned electric and natural gas utilities and how to best address  
18 climate change issues in existing utility planning and investment processes.<sup>1</sup>

19 Phase I involved a thorough stakeholder process that included  
20 numerous workshops, reports, and party comments.<sup>2</sup> The Commission  
21 issued two separate decisions establishing new requirements for  
22 investor-owned utility (IOU) climate adaptation activity. Decision  
23 (D.) 19-10-054 established definitions, preferred data sources, and  
24 standards for planning assumptions. Decision 20-08-046 required  
25 engagement with disadvantaged vulnerable communities (DVC)<sup>3</sup> regarding  
26 climate vulnerability assessment, and required IOUs to file climate  
27 vulnerability assessments every four years. To support the new

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1 R.18-04-019, Order Instituting Rulemaking to Consider Strategies and Guidance for  
Climate Change Adaptation (Apr. 26, 2018), available at:  
<<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=213511543>>  
(accessed Nov. 15, 2024).

2 D.19-10-054.

3 D.20-08-046, pp. 11-15 (defining DVCs).

1 requirements established by D.19-10-054 and D.20-08-046, the Commission  
 2 directed the IOUs to establish the CAVAMA “for the purpose of tracking  
 3 costs directly related to the vulnerability assessments ordered...,” as well as  
 4 “incremental costs associated with community outreach plans and activities  
 5 related to Community Engagement Plans and surveys.”<sup>4</sup> In compliance with  
 6 D.20-08-046, PG&E submitted Advice Letter (AL) 4309-G/5946-E to  
 7 establish the Electric Preliminary Statement Part II – Climate Adaptation  
 8 Vulnerability Assessment Memorandum Account and Gas Preliminary  
 9 Statement Part FI – Climate Adaptation Vulnerability Assessment  
 10 Memorandum Account. On October 5, 2020, the CPUC approved  
 11 AL 4309-G/5946-E effective September 11, 2020.

12 **2. Summary of Program Activities**

13 Table 8-1 identifies expenses incurred in 2023 that directly support  
 14 PG&E’s climate vulnerability assessment and associated community  
 15 engagement plan requirements per D.20-08-019.

**TABLE 8-1  
 OVERVIEW OF COSTS BY CAVAMA ACTIVITY TYPE  
 (MILLIONS OF NOMINAL DOLLARS)**

Line No.	Activity	2023 Recorded Costs
1	Internal Labor	\$0.323
2	External Contract Support	0.739
3	Total	\$1.063

16 **a. 2023 Expense**

17 Prior to the requirements established in D.20-08-046, PG&E’s  
 18 Climate Resilience Team was responsible primarily for executing a suite  
 19 of Foundational Mitigations approved by the Commission as part of  
 20 PG&E’s 2017 Risk Assessment Mitigation Phase (RAMP) filing.<sup>5</sup> At that  
 21 time, PG&E’s climate resilience function consisted of 2.5 full-time  
 22 employees (FTE) within the Corporate Sustainability department.

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<sup>4</sup> D.20-08-046, p. 52.

<sup>5</sup> Investigation (I.) 17-11-003, PG&E’s 2017 RAMP Report (Nov. 30, 2017).

1           The requirements established in D.20-08-046 contributed to the  
2 expansion of PG&E’s climate resilience function. In 2023, PG&E’s  
3 Climate Resilience Team total headcount was 4 FTEs, consisting of  
4 1 FTE dedicated to the assessment’s community engagement  
5 requirements and 3 FTEs dedicated to the vulnerability assessment and  
6 the internal management of the Enterprise Risk Climate Change  
7 Cross-Cutting Factor.

8           As indicated in Table 9-1, PG&E recorded approximately  
9 \$1.06 million in total CAVAMA expense in 2023. Internal labor  
10 accounted for \$0.323 million of the total with the remaining  
11 \$0.739 million attributable to contract support. These costs are  
12 associated with continued execution of the requirements associated with  
13 D.20-08-046, as presented in PG&E’s 2024 Climate Adaptation and  
14 Vulnerability Assessment submitted to the Commission.<sup>6</sup> The costs  
15 represented are entirely incremental to the 2020 GRC and incurred to  
16 meet the Commission’s new climate-assessment requirements. PG&E’s  
17 efforts to satisfy new requirements included:

- 18 • Managing the Climate Adaptation Vulnerability Assessment process;
- 19 • Coordinating contract support to understand and share the results of  
20 the climate hazard analysis;
- 21 • Developing PG&E’s Community Engagement Plan;
- 22 • Implementing PG&E’s Community Engagement Plan with required  
23 parties;
- 24 • Preparing the Climate Adaptation Vulnerability Assessment Report;  
25 and
- 26 • Assessing the results of the Community Engagement Plan and the  
27 Resilient Together Initiative.

28           Contract support for PG&E’s CAVAMA-eligible activities was  
29 provided by the firm ICF<sup>7</sup> who supports PG&E’s Climate Resilience  
30 Team with quantitative analysis and technical guidance.

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6 PG&E Climate Adaptation and Vulnerability Assessment (2024), available at:  
<<https://www.pge.com/assets/pge/docs/about/corporate-responsibility-and-sustainability/CAVA-report.pdf>> (accessed Nov. 15, 2024).

7 ICF, available at: <<https://www.icf.com/>> (accessed Nov. 15, 2024).

- 1 A summary of relevant contract support activities includes:
- 2 • Assessment of climate change vulnerability of PG&E operations and
  - 3 services;
  - 4 • Development of communications materials; and
  - 5 • Climate Data Management.

6 PG&E engaged additional consulting support to implement PG&E’s  
7 community engagement plan.<sup>8</sup> To identify the consultant, PG&E  
8 conducted a competitive request for proposal (RFP) process that  
9 included relevant scoring criteria such as “cultural competency” and  
10 “demonstrated connections to prominent community groups” in addition  
11 to standard criteria such as “success record” and “costs.”

12 The specifics of PG&E’s approach to meeting the community  
13 engagement requirements of D.20-08-046 are discussed in detail in  
14 PG&E’s Community Engagement Plan (filed May 2023).<sup>9</sup> The results of  
15 the Community Engagement Plan were included in the PG&E’s 2024  
16 Climate Adaptation Vulnerability Assessment. The full Resilient  
17 Together Initiative results are presented in Appendix C of the full  
18 report.<sup>10</sup>

- 19 A summary of relevant contract support activities includes:
- 20 • Advising on the ongoing community engagements;
  - 21 • Interviewing Resilient Together Advisory Group (RTAG) participants;
  - 22 • Managing RTAG project meetings (five groups holding multiple
  - 23 meetings across PG&E’s service territory);
  - 24 • Supporting RTAG participant community outreach with needs like
  - 25 language translation of collateral and other culturally competent
  - 26 engagement considerations;

---

<sup>8</sup> D.20-08-046, p. 111, Conclusion of Law 20.

<sup>9</sup> R.18-04-019, PG&E’s Community Engagement Plan as Part of Its Upcoming Climate Adaptation Vulnerability Assessment (May 15, 2023), available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M509/K080/509080987.PDF> (accessed No. 15, 2024).

<sup>10</sup> PG&E Climate Adaptation and Vulnerability Assessment (2024), Appendix C, available at: <https://www.pge.com/assets/pge/docs/about/corporate-responsibility-and-sustainability/CAVA-report.pdf> (accessed Nov. 15, 2024).

- 1                   • Aggregating and analyzing outreach data provided by RTAG  
2                   participants;  
3                   • Developing a final consultant report and associated materials; and  
4                   • Tracking activities to confirm microgrant payment eligibility for RTAG  
5                   outreach partners.

6                   Regarding the incrementality of these costs, D.20-08-046  
7                   specifically notes that:

8                   IOUs are...allowed to use the CAVAMA for the purpose of tracking  
9                   incremental costs associated with community outreach plans and  
10                  activities related to the Community Engagement Plan and surveys.  
11                  The CAVAMA is limited to 'incremental' costs in this respect  
12                  because we expect IOUs to leverage and build upon their existing  
13                  community engagement framework.<sup>11</sup>

14                  **C. Conclusion**

15                  PG&E's costs presented in this chapter are reasonable and should be  
16                  approved in their entirety.

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<sup>11</sup> D.20-08-046, p. 52.

**CHAPTER 9**  
**OTHER MISCELLANEOUS MEMORANDUM ACCOUNTS**

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OTHER MISCELLANEOUS MEMORANDUM ACCOUNTS

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## CHAPTER 9

### OTHER MISCELLANEOUS MEMORANDUM ACCOUNTS

#### A. Introduction

This chapter demonstrates the reasonableness of Pacific Gas and Electric Company's (PG&E) request to recover incremental costs incurred: (1) in 2023 for various customer support activities; and (2) between 2020-2023 for incremental uncollectibles associated with the COVID-19 pandemic. In total, PG&E requests to recover \$11.1 million in Operations and Maintenance (O&M) expenses for 2023 activities recorded to the COVID-19 Pandemic Protections Memorandum Account, Disconnections Memorandum Account, Percentage of Income Payment Plan Memorandum Account (PIPPMA), Emergency Consumer Protections Memorandum Account, and Microgrids Memorandum Account.

In addition, PG&E requests to recover \$5.7 million in incremental uncollectibles expenses incurred between 2020-2023 that were recorded to the COVID-19 Pandemic Protections Memorandum Account and the Medium-Large Commercial and Industrial coronavirus (COVID-19) Disconnection Moratorium Memorandum Account.

Table 9-1 summarizes the costs recorded to these memorandum accounts.

**TABLE 9-1  
OVERVIEW OF MEMORANDUM ACCOUNTS**

Line No.	Memo Account	Activity	2020 Expense Recorded Costs	2021 Expense Recorded Costs	2022 Expense Recorded Costs	2023 Expense Recorded Costs	Total 2020-2023 Expense Recorded Costs
1	COVID-19 Pandemic Protections Memorandum Account (CPPMA) – Incremental Uncollectibles	Incremental uncollectibles expense during the COVID-19 pandemic associated with residential and small business customers.	\$16,385	\$13,139	\$(26,068)	\$979	\$4,436
2	CPPMA	Extending emergency customer protections to customers impacted by the COVID-19 pandemic, implementing new pilots to help customers that accumulated arrears during the COVID-19 pandemic, accessing federal and state COVID-19 relief funding	–	–	–	2,342	2,342
3	Disconnections Memorandum Account (DMA)	Implementing policies that aim to mitigate residential disconnections pursuant to Decision (D.) 20-06-003	–	–	–	5,717	5,717
4	PIPPMA	Implementing the Percentage of Income Payment Plan (PIPP) Pilot pursuant to D.21-10-012	–	–	–	1,525	1,525
5	Emergency Consumer Protections Memorandum Account (ECPMA)	Extending emergency customer protections to customers impacted by wildfires and other emergencies, pursuant to D. 18-08-004 and D.19-07-015	–	–	–	1,363	1,363
6	Medium-Large Commercial and Industrial COVID-19 Disconnection Moratorium Memorandum Account (ML-CDMMA)	Implementing a moratorium on disconnections for eligible medium-large commercial and industrial customers from December 30, 2020 through September 30, 2021.	24	2,676	(1,745)	261	1,217
7	Microgrids Memorandum Account	Temporary generators for substation microgrids – 2023 fire-season per D.22-11-009	–	–	–	111	111
8	Total		\$16,409	\$15,815	\$(27,813)	\$12,298	\$16,711

1 **B. Emergency Consumer Protections Memorandum Account**

2 **1. Background**

3 The purpose of the ECPMA is to record incremental costs associated  
4 with PG&E's implementation of its Emergency Consumer Protection Plan.  
5 PG&E implements this plan when the California Governor's Office or the  
6 President of the United States declares a state of emergency due to a  
7 disaster that has either resulted in the loss or disruption of the delivery or  
8 receipt of utility service and/or resulted in the degradation of the quality of  
9 utility service as defined in D.19-07-015.<sup>1</sup>

10 PG&E established the ECPMA in accordance with D.18-08-004, which  
11 authorized a temporary emergency disaster relief program and directed  
12 PG&E to rename its existing Wildfires Customer Protections Memorandum  
13 Account to the ECPMA to reflect the fact that D.18-08-004 extended the  
14 applicability of emergency customer protections for other disasters, not only  
15 wildfires.<sup>2</sup> In September 2018, PG&E submitted a Tier 2 Advice Letter  
16 (AL) 4014-G/5378-E to establish the ECPMA. In this AL, PG&E proposed  
17 recording to the ECPMA all incremental expenses incurred by PG&E  
18 associated with the protection measures described in PG&E's Emergency  
19 Consumer Protection Plan, including expenses associated with the waiving  
20 of fees for temporary service.<sup>3</sup> The California Public Utilities Commission  
21 (CPUC or Commission) approved AL 4014-G/5378-E effective October 7,  
22 2018.

23 Subsequent to this approval, the Commission established a permanent  
24 emergency disaster relief program in D.19-07-015, which affirmed that  
25 PG&E should continue to use the ECPMA to track costs associated with  
26 implementing PG&E's Emergency Consumer Protections Plan.<sup>4</sup> Pursuant  
27 to D.19-07-015, Ordering Paragraph (OP) 2,<sup>5</sup> within 15 days of a declaration  
28 of a state of emergency for a qualifying disaster, PG&E submits a Tier 1 AL

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1 D.19-07-015, p. 16.

2 D.18-08-004, p. 22, OP 3.

3 PG&E AL 4014-G/5378-E, p. 11.

4 D.19-07-015, p. 27.

5 D.19-07-015, pp. 63-64, OP 2.

1 to report its compliance with implementing emergency customer protections.  
2 In each AL, PG&E confirms that it will record to the ECPMA incremental  
3 costs associated with implementing the plan's customer protections.<sup>6</sup>

4 Under Electric Rule 13.A.1, customers who need temporary service  
5 would be required to pay the estimated cost for installation and removal of  
6 facilities needed to furnish temporary service. PG&E records the actual  
7 costs of furnishing temporary service to customers affected by wildfires in  
8 the Catastrophic Event Memorandum Account (CEMA). However, only the  
9 Rule 13 waiver costs related to the October 2017 fires is tracked for  
10 recovery in CEMA. Rule 13 waiver costs for other, non-October 2017  
11 wildfires and declared events will be tracked and recovered through the  
12 ECPMA, which was approved through AL 4014-G/5378-E.

13 **a. Summary of Program Activities**

14 In 2023, PG&E recorded to the ECPMA incremental costs for  
15 providing temporary services, discontinuing billing, stopping estimated  
16 usage (i.e., customer billing support), and providing outreach to  
17 customers impacted by disasters. Table 9-2 below summarizes the  
18 2023 costs recorded in the ECPMA for these activities.

**TABLE 9-2**  
**SUMMARY OF 2023 ECPMA COST BY ACTIVITY EXPENSE**  
**(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Activity	2023 Recorded Costs
1	Temporary Services	\$1,211
2	Customer Billing Support	152
3	Total ECPMA	\$1,363

19 **1) Temporary Services**

20 Pursuant to Resolution (Res.) E-4899 (November 9, 2017),  
21 E-4968 (November 29, 2018), and E-5023 (December 5, 2019),

---

<sup>6</sup> For more information, see Electric Preliminary Statement Part HG and Gas Preliminary Statement Part EC. PG&E submits revised preliminary statements with each Tier 1 AL to confirm that it will track incremental costs associated with implementing its Emergency Consumer Protection Plan for each qualifying disaster.

1 PG&E waived Electric Rule 13 for applicants affected by declared  
2 emergencies and recorded in the ECPMA costs for providing  
3 temporary service to customers affected by emergency disasters.  
4 This includes approximately \$1.2 million (Table 9-2, line 1) in 2023  
5 for several emergency events.

## 6 **2) Customer Billing Support**

7 To support customers impacted by a wildfire or other  
8 emergency, D.19-07-015 requires PG&E to discontinue billing and  
9 stop estimated usage for billing attributed to the time period when  
10 a home/unit was unoccupied as a result of the emergency and  
11 discontinue billing.

12 In 2023, PG&E recorded approximately \$0.2 million (Table 9-2,  
13 line 2) to the ECPMA to provide these services in response to  
14 several emergency events. PG&E deployed resources to identify  
15 the premises of impacted customers that were not capable of  
16 receiving utilities services, discontinued billing these premises  
17 without assessing a disconnect charge or using estimated data, and  
18 dispatched field resources to verify the status of impacted premises.

## 19 **C. COVID-19 Pandemic Protections Memorandum Account**

### 20 **1. Background**

21 The purpose of the CPPMA is to record and track incremental costs  
22 associated with implementing emergency customer protections for  
23 residential and small business customers related to the COVID-19  
24 pandemic.

25 On March 4, 2020, Governor Newsom declared a statewide emergency  
26 due to the COVID-19 pandemic. On March 19, 2020, PG&E submitted a  
27 Tier 1 AL (AL 4227-G/5784-E) pursuant to OP 1 of D.19-07-015 to  
28 implement emergency customer protections for residential and small  
29 business customers.

30 On April 16, 2020, the Commission adopted Res.M-4842, which directed  
31 PG&E to offer applicable emergency customer protections to residential and

1 small business customers through April 16, 2021.<sup>7</sup> Res.M-4842 also  
2 directed PG&E to establish the CPPMA to record incremental costs  
3 associated with implementing the emergency customer protections and to  
4 submit a Tier 2 AL to establish the account and describe the protections it  
5 would offer to customers.<sup>8</sup>

6 On May 1, 2020, PG&E submitted AL 4244-G/5816-E to describe its  
7 implementation of the emergency customer protections and to establish the  
8 CPPMA. PG&E submitted two supplemental ALs to incorporate feedback  
9 from the Commission’s Energy Division and the Commission approved  
10 AL 4244-G/5816-E and supplements effective March 4, 2020.

11 On June 24, 2021, the Commission adopted D.21-06-036, which  
12 directed PG&E to automatically enroll eligible residential and small business  
13 customers in long duration payment plans,<sup>9</sup> secure access to state and  
14 federal funded COVID-19 arrearage relief,<sup>10</sup> and implement a Small  
15 Business Customer Outreach Pilot for Disadvantaged Communities (Small  
16 Business Pilot) to reduce bill arrearages and drive persistent bill savings for  
17 small business customers through one-on-one energy management  
18 coaching.<sup>11</sup> The Commission authorized PG&E to record incremental costs  
19 to the CPPMA to implement the orders from D.21-06-036.<sup>12</sup>

20 On April 7, 2022, the Commission adopted D.22-04-037, which directed  
21 PG&E to collaborate with the other large investor-owned utilities (IOU) and  
22 stakeholders through a working group process to propose the  
23 Community-Based Organization Arrearage Case Management Pilot  
24 Program (Community Based Organization (CBO) Pilot) and an evaluation  
25 plan for assessing its effectiveness. The Commission explained that “[t]he  
26 CBO Pilot is intended to serve customers who would otherwise continue to  
27 face difficulty in resolving their utility bill debt once the statewide [COVID-19]

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7 Res.M-4842, p. 12, OP 5.

8 Res.M-4842, p. 12, OPs 2 and 4.

9 D.21-06-036, p. 50, OPs 1-2.

10 D.21-06-036, p. 51, OP 7.

11 D.21-06-036, p. 52, OP 9. AL 6381-E/4517-G and supplement.

12 D.21-06-036, p. 51, OP 7.

1 relief distributed to utilities is applied to customer accounts.”<sup>13</sup> In  
2 D.22-04-037, the Commission clarified that the CBO Pilot would be funded  
3 through the CPPMA because it “is the most readily available source of funds  
4 and is specific to COVID-19 relief efforts.”<sup>14</sup>

5 On February 15, 2024, the Commission adopted D.24-02-046, which  
6 approved the Community-Based Organization Arrears Case Management  
7 Pilot Program (CBO Pilot).<sup>15</sup> In D.24-02-046, the Commission reiterated  
8 that PG&E is authorized to record incremental costs to the CPPMA to  
9 implement the CBO Pilot.<sup>16</sup>

10 Ultimately, the Commission authorized PG&E to track and record the  
11 following costs to the CPPMA:

- 12 • Incremental expenses associated with implementing the emergency  
13 customer protections;
- 14 • Incremental uncollectibles expense during the COVID-19 pandemic  
15 period for residential and small business customers;
- 16 • The costs of using a short-term revolving credit facility for purposes of  
17 financing residential and small business cash flow shortfalls resulting  
18 from the implementation of the emergency customer protections;
- 19 • The costs of administering, implementing, and evaluating the Small  
20 Business Pilot;
- 21 • The costs of securing access to state and federal funded COVID-19  
22 arrearage relief; and
- 23 • The costs of implementing and evaluating the CBO Pilot.

24 PG&E discusses costs recorded to the CPPMA for incremental  
25 uncollectibles from 2020-2023 and costs recorded to the CPPMA in 2023 for  
26 eligible customer support activities in further detail below.

## 27 **2. Incremental Uncollectibles**

28 Between 2020-2023, PG&E recorded a net balance of approximately  
29 \$4.4 million in incremental costs to the CPPMA to account for incremental

---

<sup>13</sup> D.22-04-037, p. 2.

<sup>14</sup> D.22-04-037, p. 39, Finding of Fact 30.

<sup>15</sup> D.24-02-046, pp. 36-37, OP 1.

<sup>16</sup> D.24-02-046, p. 36, Conclusion of Law 20.

1 uncollectibles associated with the COVID-19 pandemic. The \$4.4 million net  
2 balance of incremental uncollectibles is based on recording \$16.4 million in  
3 2020, \$13.1 million in 2021, an adjustment that reduced the balance by  
4 (\$26.1) million in 2022, and \$1.0 million in 2023.

5 The incremental uncollectibles were calculated as the difference  
6 between the bad debt expense versus the authorized uncollectible  
7 revenues. The bad debt expense was calculated by: taking total bad debt  
8 expense, allocating a portion of it to small business customers based on an  
9 allowance for doubtful accounts roll forward, and excluding electric  
10 transmission. The authorized uncollectibles revenues were calculated by  
11 multiplying the monthly billed and unbilled revenues by the General Rate  
12 Case (GRC) authorized uncollectibles factor. The incremental uncollectibles  
13 were for the period from March 2020 (per AL 4244-G-B/5816-E-B) to  
14 September 2021 (per AL 4475-G/6290-E).

15 Subsequently, beginning in 2022, the recorded bad debt expense was  
16 revised to reflect the actual write-offs of accounts receivables once they  
17 were known, and there were significant true-up revisions to actual write-offs  
18 that lowered the incremental uncollectibles balance in CPPMA.

19 Additionally, in March 2022, the CPUC approved AL 4458-G/6237-E,  
20 regarding transfer of residential uncollectibles from the CPPMA into the  
21 Residential Uncollectible Balancing Account (RUBA). Therefore, in 2022,  
22 \$12.4M of uncollectibles were moved from the CPPMA to the RUBA.

### 23 **3. Summary of Program Activities**

24 In 2023, PG&E recorded \$2.3 million to the CPPMA for incremental  
25 costs associated with the Small Business Pilot, leveraging state and federal  
26 funding to assist customers with their COVID-19 arrearages, implementation  
27 of COVID-19 Pay Plans, and the CBO Pilot. Table 9-3 below summarizes  
28 the 2023 costs recorded in the CPPMA for these activities.

**TABLE 9-3  
SUMMARY OF 2023 RECORDED COSTS TO CPPMA BY ACTIVITY  
(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Activity	2023 Recorded Costs
1	Small Business Pilot	\$1,892
2	Leverage State and Federal Funding	243
3	COVID-19 Pay Plans	170
4	CBO Pilot	37
5	Total	\$2,342

**a. Small Business Pilot**

In 2023, PG&E recorded approximately \$1.9 million (Table 8-3, line 2) in incremental costs to the CPPMA to administer the Small Business Pilot. This includes approximately \$1.6 million for pilot implementation associated with the statewide implementer, \$237,000 for internal labor and overheads to support outreach, evaluation, and marketing, \$52,000 for the third-party pilot evaluator, and \$6,000 for development of program collateral to share with customers.

Pursuant to OP 12 of D.21-06-036, PG&E and the other large IOUs<sup>17</sup> submitted a joint Tier 2 AL in October 2021 to propose an implementation plan for the Small Business Pilot, including outreach and evaluation protocols, timelines, a budget, and evaluation plan.<sup>18</sup> In support of the pilot’s objective of achieving persistent bill savings for small business customers, the Joint IOUs proposed the following intervention strategies: (1) leveraging data analytics to determine optimal rate options and create energy action plans, (2) conducting customized outreach and one-on-one energy management coaching, (3) performing on-site energy audits, and (4) monitoring energy usage and arrearages for one year following pilot participation to assess the

<sup>17</sup> This refers to PG&E, Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas), and San Diego Gas and Electric Company (SDG&E).

<sup>18</sup> For more information, see SCE AL 4620-E, PG&E AL 6381-E/4517-G, SoCalGas AL 5888, SDG&E AL 3884-E/3033-G (SCE AL 4620-E et al.), submitted October 28, 2021. See also D.21-06-036, p. 43.

1 pilot's impacts.<sup>19</sup> On September 9, 2022, the Joint IOUs submitted a  
2 supplemental AL to clarify that Community Choice Aggregation (CCA)  
3 customers could participate in the Small Business Pilot and to update  
4 the proposed schedule because the initial timeline was no longer  
5 achievable due to delayed approval. The Commission approved the  
6 supplemental AL on October 18, 2022. The Small Business Pilot  
7 launched in January 2023 and ended in May 2024.

8 As described in the implementation ALs, the Small Business Pilot  
9 was implemented by a third-party statewide implementer and SDG&E  
10 was the lead utility in contracting and coordinating with the  
11 implementer.<sup>20</sup> The Joint IOUs explained in the implementation ALs  
12 that a single statewide implementer would allow customers across  
13 different utility service areas to receive consistent messaging from  
14 energy coaches.<sup>21</sup>

15 In 2023, PG&E recorded \$1.6 million to the CPPMA for work  
16 performed by the statewide implementer, which included customer rate  
17 analysis, energy audits, one-on-one energy management coaching,  
18 ongoing monitoring of energy usage and arrearages, as well as  
19 administrative costs. This includes a fixed fee for administrative costs  
20 and "per customer" fees associated with deliverables such as making a  
21 marketing and enrollment effort, enrolling a customer in the pilot,  
22 conducting a site audit, and meeting with the customer to provide  
23 ongoing energy coaching.

24 In addition, PG&E recorded approximately \$237,000 in internal labor  
25 and overheads to the CPPMA to support the Small Business Pilot. This  
26 primarily represents incremental costs recorded to the CPPMA for direct  
27 customer outreach from PG&E's small business account managers to  
28 customers that would benefit from a rate change. In total, the Small  
29 Business Pilot resulted in contact with more than 1,000 small business  
30 customers in PG&E's service area, approximately 580 of whom were

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**19** SCE AL 4620-E et al., pp. 5-7.

**20** SCE AL 4620-E et al., p. 7.

**21** SCE AL 4620-E et al., pp. 6-7.

1 advanced to the statewide implementer for participation. Customers  
2 who participated in the Small Business Pilot saved more than \$500,000  
3 in total rate savings as a result of the services provided. The internal  
4 labor and overheads also include costs associated with coordinating the  
5 third-party evaluation and developing outreach materials for the Small  
6 Business Pilot.

7 PG&E also recorded approximately \$46,000 to the CPPMA in 2023  
8 to support a third-party evaluation of the Small Business Pilot. This  
9 included creating an evaluation plan and performing an evaluability  
10 assessment to: (1) document the program theory, (2) determine if the  
11 planned goals are plausible, and (3) assess whether the pilot appears to  
12 be appropriately funded to meet those goals. The third-party evaluator  
13 also periodically reviewed program tracking data to ensure that quality  
14 data was being collected and provided actionable recommendations  
15 where relevant. The third-party evaluator also began conducting the  
16 process and impact evaluation of the Small Business Pilot in 2023 by  
17 analyzing available data and conducting interviews with participants and  
18 energy coaches. PG&E anticipates that the study will be completed on  
19 or before 2026.

20 Lastly, PG&E recorded approximately \$6,000 in 2023 for a vendor to  
21 design outreach materials for the program, including a flyer in English  
22 and Spanish that could be shared with customers and email outreach  
23 templates.

24 **b. Leverage State and Federal Funding**

25 PG&E recorded approximately \$0.243 million (Table 8-3, line 3) in  
26 incremental costs to the CPPMA in 2023 to leverage state and federal  
27 funding, as directed in D.21-06-036.<sup>22</sup> This includes approximately  
28 \$0.169 million to develop and revise reporting for new Commission data  
29 requests associated with the pandemic, identifying the CAPP eligible  
30 population, and providing data in response to audits of the CAPP  
31 program. PG&E also recorded approximately \$22,000 in marketing  
32 communications and consulting services, \$46,000 in postage and

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<sup>22</sup> D.21-06-036, p. 51, OP 7.

1 material costs associated with customer CAPP letters, and \$6,000 in  
2 internal labor overhead.

3 **c. COVID-19 Pay Plans**

4 In 2023, PG&E recorded approximately \$0.170 million (Table 8-3,  
5 line 4) in incremental costs to implement COVID-19 Pay Plans.<sup>23</sup>

6 The primary driver of costs recorded to the CPPMA for the  
7 COVID-19 Pay Plans is approximately \$0.148 million in labor charges  
8 from customer service representatives for time spent assisting  
9 customers enrolled in the COVID-19 Pay Plans. In addition, PG&E  
10 recorded approximately \$22,000 to develop and send letters to  
11 customers to notify them of missed payments and un-enrollments.

12 **d. Community Based Outreach Pilot**

13 In 2023, PG&E recorded approximately \$37,000 (Table 9-3, line 4)  
14 in incremental costs to develop a pilot proposal resulting from  
15 D.21-06-036, which ordered the joint IOU to work with the CBOs to  
16 establish a case management process to help customers access  
17 resources and assistance in disadvantaged communities. The costs  
18 recorded to the account in 2023 include approximately \$10,000 of  
19 incremental internal labor associated with developing and participating  
20 in CBO Working Group meetings directed by the Commission<sup>24</sup> as well  
21 as approximately \$27,000, which represents PG&E's portion of a  
22 co-funded contract with the joint IOUs for a third-party facilitator to  
23 manage the CBO Working Group process.

24 **D. Disconnections Memorandum Account**

25 **1. Background**

26 The purpose of the DMA is to track incremental costs associated with  
27 implementing the requirements of D.20-06-003, Medical Baseline (MBL)  
28 recertification administrative and implementation costs pursuant to  
29 D.22-11-033, and administration of the PIPP Pilot on a temporary basis until  
30 the Commission approved the PIPPMA.

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<sup>23</sup> D.21-06-036, p. 50, OPs 1-2.

<sup>24</sup> D.22-04-037, p. 40, OP 1.

1 On June 11, 2020, the Commission adopted D.20-06-003, which  
2 included rules and other changes “designed to reduce the number of  
3 residential customer disconnections and to improve reconnection processes  
4 for disconnected customers.”<sup>25</sup> D.20-06-003 supports SB 598’s directive for  
5 the Commission to, among other things, “develop rules, policies, or  
6 regulations with a goal of reducing the statewide disconnection rate of gas  
7 and electric utility customers by January 1, 2024.”<sup>26</sup> In support of this  
8 objective, the Commission directed PG&E to administer the Arrearage  
9 Management Plan (AMP) program on a pilot basis until June 2024.<sup>27</sup> The  
10 AMP program allows California Alternate Rates for Energy (CARE)/Family  
11 Electric Rate Assistance (FERA) customers with at least \$500 in past due  
12 balances that are at least 90 days old to receive forgiveness of 1/12th of  
13 their past due balance with each timely payment of their current monthly  
14 charges, up to \$8,000 per calendar year.<sup>28</sup> The Commission authorized  
15 PG&E to record incremental costs associated with the AMP program in its  
16 DMA in D.20-06-003.<sup>29</sup> The Commission affirmed PG&E’s ability to record  
17 these costs to the DMA in its approval of PG&E’s AMP implementation AL  
18 via Res.E-5114.<sup>30</sup>

19 On August 30, 2023, the Commission adopted D.23-08-049, which  
20 directed PG&E to continue to offer the AMP program to eligible residential  
21 customers until October 1, 2026.<sup>31</sup>

22 On November 22, 2023, the Commission adopted D.22-11-033, which  
23 granted a petition for modification of D.02-04-026 submitted by PG&E, SCE,  
24 SDG&E, and SoCalGas (the IOUs). The approved modifications included:  
25 (1) increasing the number of years between recertification for the MBL  
26 program from every two years to every four years for customers with a  
27 permanent disability, and (2) removing the requirement for customers

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**25** D.20-06-003, p. 2.

**26** D.20-06-003, p. 5.

**27** D.20-06-003, p. 163, OPs 84-86.

**28** See D.20-06-003, pp. 156-159, OPs 52-69 for information on the AMP.

**29** D.20-06-003, p. 165, OP 95.

**30** Res.E-5114, p. 6.

**31** D.20-06-003, p. 146, OP 3.

without a permanent disability to self-certify their eligibility for the MBL program each year. Customers without a permanent disability will only need a doctor’s certification every two years.<sup>32</sup> The Commission clarified in D.22-11-033 that the IOUs can record recertification administrative and implementation costs to their DMAs.<sup>33</sup>

**2. Summary of Program Activities**

In 2023, PG&E recorded \$5.7 million in incremental costs to the DMA to implement the AMP program pursuant to D.20-06-003 and Res. E-5114 and to update the MBL recertification process pursuant to D.22-11-033. Table 9-4 identifies the incremental costs associated with each of these activities and PG&E describes these activities in further detail below.

**TABLE 9-4  
SUMMARY OF 2023 RECORDED COSTS TO DMA BY ACTIVITY  
(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Activity	2023 Recorded Costs
1	Arrearage Management Plan Program Management	\$5,701
2	MBL Support	16
3	Total	\$5,717

**a. Arrearage Management Plan**

Pursuant to D.20-06-003, and Res.E-5114 (December 17, 2020), PG&E launched the AMP in February 2021 to help low-income customers reduce their arrears and develop plans that would enable them to timely pay their bills. In 2023, PG&E recorded approximately \$5.7 million (Table 8-4, line 1) to support and administer the AMP program. The primary drivers for incremental costs in 2023 were ongoing customer support, reporting, communications, and Information Technology (IT) related work.

In 2023, PG&E recorded approximately \$5.5 million in internal labor costs associated with providing customer support for the AMP program.

<sup>32</sup> D.22-11-033, pp. 5-6, OP 1.

<sup>33</sup> D.22-11-033, pp. 5-6, OP 1, citing new OP 25 in D.02-04-026.

1 Pursuant to D.20-06-003, PG&E cannot disconnect residential  
2 customers due to nonpayment until PG&E “offers to enroll eligible  
3 customers in all applicable benefit programs administered by the  
4 utility.”<sup>34</sup> Accordingly, PG&E offers eligible customers who contact the  
5 call center about their bills or financial assistance the opportunity to  
6 enroll in AMP. Customer service representatives also supported any  
7 customer callbacks that were triggered by automated notifications of  
8 missed AMP payments. PG&E implemented these automated callbacks  
9 in 2023 as a means of helping customers adhere to program guidelines  
10 and maintain enrollment.<sup>35</sup> In addition to customer service  
11 representatives providing AMP information and processing enrollments,  
12 PG&E recorded incremental costs for a team of AMP specialists to  
13 support the program, including resolving any AMP disputes as well as  
14 transferring and correcting of AMP enrollment due to change of address  
15 or wrong address turn-ons.

16 In addition to the automated missed payment calls, customers  
17 enrolled in AMP also receive notifications triggered by specific milestone  
18 activities. Upon enrollment and termination, customers receive letters  
19 notifying them of their status change, and providing them with key  
20 information. During the course of program participation, customers also  
21 receive progress updates after making 3 months of on time payments,  
22 6 months of on time payments, and 9 months of on time payments.  
23 These communications were sent via direct mail and were triggered by a  
24 manual process that utilized internal reporting to identify when  
25 customers reached the milestones. In 2023, PG&E sent 170,711  
26 enrollment letters; 116,691 3-month success letters, 79,959 6-month  
27 success letters; 41,235 9-month success letters; 27,226 completion  
28 letters and 115,134 unenrollment letters to customers. PG&E recorded

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**34** D.20-06-003, p. 145, OP 1c.

**35** “Eligible residential CARE and FERA customers can miss up to two non-sequential payments if the customer makes up the payment on the next billing due date with an on-time payment of both the current and missed payments.” D.20-06-003, p. 158, OP 64.

1 \$0.2 million in incremental costs associated with sending customers  
2 these AMP communications.

3 Per D.20-06-003, utilities are required to provide monthly and  
4 annual compliance reporting for AMP. These reports include metrics  
5 such as enrollment and un-enrollment counts, number of eligible  
6 customers, dollar amounts forgiven through AMP, dollars enrolled in  
7 AMP, and dollars eligible for forgiveness through AMP. In 2023, PG&E  
8 recorded \$0.024 million in labor costs associated with AMP reporting.

9 To maximize efficiency and reduce labor costs, PG&E implemented  
10 several IT enhancements for AMP in 2023. A report was created to  
11 compile AMP metrics to be used in compliance reporting. PG&E AMP  
12 subject matter experts partnered with IT staff to automate the report,  
13 pulling customer information from applicable databases and performing  
14 end to end testing to ensure accuracy. A different report was created to  
15 capture AMP re-enrollments, which, prior to the IT enhancement, were  
16 handled manually contributing to labor costs. This report was also used  
17 to support logic and coding tied to the issuance of enrollment letters for  
18 customers who re-enrolled in AMP. In 2023, PG&E also underwent a  
19 system upgrade which allowed for the real time automation of direct mail  
20 and future email 3, 6, 9 milestone communications. These efforts  
21 resulted in customers receiving their letters within 7-10 days of reaching  
22 the AMP milestone and will support digital communication channels  
23 such as email in the future.

24 Lastly, PG&E implemented IT enhancements to support customer  
25 credit scenarios into existing AMP payment logic. Due to new customer  
26 credits deploying in 2022, this created customer confusion resulting in  
27 missed AMP payments. Prior to this IT upgrade, manual adjustments  
28 were made in order to correct the issue. The work performed ensured  
29 that all adjustment types were accounted for and compatible with AMP  
30 payment logic. The IT enhancements in 2023 totaling \$25,000 have  
31 automated many once manual processes and will continue to result in  
32 reduced AMP labor costs.

1           **b. MBL Support**

2                   On February 21, 2023, PG&E submitted AL 4720-G/6865-E to  
3                   describe its implementation plans, tariff revisions, and estimated costs  
4                   necessary to modify the MBL renewal process pursuant to OP 2 of  
5                   D.22-11-033. PG&E recorded approximately \$16,000 to the DMA in  
6                   2023 for billing system updates and online MBL form changes  
7                   necessary to comply with the changes to the recertification process  
8                   adopted by the Commission in D.22-11-033.

9   **E. PIPPMA**

10   **1. Background**

11                   The purpose of the PIPPMA is to track incremental costs associated  
12                   with implementing the requirements of D.21-10-012. On December 15,  
13                   2022, the Commission adopted D.21-10-012, which included PG&E's  
14                   proposal for the PIPP Pilot to determine if a PIPP program could (i) reduce  
15                   the number of low-income households at risk of disconnection,  
16                   (ii) encourage participation in energy saving and energy management  
17                   programs, (iii) increase access to essential levels of energy service, and  
18                   (iv) control program costs. Moreover, the PIPP pilot should aid in  
19                   determining if levelized monthly bills that are capped based on a percentage  
20                   of income can reduce the number of low-income households that are at risk  
21                   for disconnection.

22   **2. Summary of Program Activities**

23                   In 2023, PG&E recorded approximately \$1.5 million in incremental costs  
24                   to implement the PIPP pilot, as shown in Table 9-5. PG&E describes these  
25                   activities in further detail below.

**TABLE 9-5  
SUMMARY OF 2022 RECORDED COSTS TO PIPMA BY ACTIVITY  
(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Activity	2023 Recorded Costs
1	Program/Project Management & Operations	\$689
2	IT Pilot Implementation	551
3	Measurement and Evaluation	145
4	Marketing and Education	140
5	Total	<u>\$1,525</u>

**a. Program/Project Management & Operations**

In 2023, PG&E incurred approximately \$689,000 in activities related to Program and Project Management to support the implementation of the PIPP Pilot and the Program Operations as mandated by D.21-10-012. This expenditure breaks down to the following categories:

- Internal Labor: \$396,333; and
- Contract Labor: \$292,553.

PG&E internal labor activities included: (1) coordinating various internal teams (IT, Marketing, Contact Center, etc.) to successfully implement PIPP within PG&E's billing systems and the stabilization of the implementation, (2) developing operational procedures to process enrollments, including regular tracking and reporting enrollment statistics (3) developing Post Enrollment Verification (PEV) procedures, along with necessary customer communications requesting for verification details, (4) planning outreach campaigns to acquire additional customers, including customers at risk of disconnection, (5) completing Contact Center trainings to support customers at risk of disconnection, proactively offering PIPP to targeted customers, including job aids and resources to assist with handling calls and providing customers with accurate information regarding PIPP enrollment status, and (6) handling billing exceptions and resolving escalated billing issues.

Contract labor activities included: (1) consultant services to develop materials to support the contact center, including building the call flow job aid and Contact Center training materials, (2) support of CBOs with customer enrollments of targeted populations and PEV, including

1 tracking CBO activities and payments to CBOs, and (3) staff  
2 augmentation for processing enrollments and PEV processing.

3 **b. IT Pilot Implementation**

4 In 2023, PG&E incurred approximately \$551,000 for IT activities  
5 required to implement the PIPP Pilot in PG&E's billing system, as  
6 mandated by D.21-10-012. This expenditure breaks down to the  
7 following categories:

- 8 • Contract Labor: \$465,237; and
- 9 • Internal Labor: \$86,215.

10 In Q1 2023, PIPP was launched, followed by the CCA deployment in  
11 April. With each phase of the deployment there was a stabilization  
12 period where the team identified and resolved defects. These activities  
13 ensured the functionality of the following:

- 14 • New coding to calculate PIPP discount for Bundled and CCA  
15 customers, including proper logic for when the PIPP discount and  
16 taxes are applied;
- 17 • New logic to display the Customer Account Alerts and Customer  
18 Contacts, which supports the identification of customer PIPP  
19 participation status when a customer contacts PG&E;
- 20 • New logic that automated customer communications based on  
21 customer application status (enrolled, not enrolled, ineligible,  
22 waitlisted, and various post-enrollment proof of income verification  
23 statuses);
- 24 • Functionality for participating CCA billing and data transfer between  
25 CCAs and PG&E for customer billing; and
- 26 • Bill Messaging & Presentment – clearly and accurately displays the  
27 PIPP discount; PIPP messaging is visible and understandable, and  
28 includes web page link for more information regarding PIPP.

29 Additional IT activities included: (1) developing various reporting  
30 requirements; and (2) reporting that is pulled from the Billing System  
31 and used for the evaluation and operational requirements including  
32 tracking of enrollments and participation in the pilot. These reports  
33 include:

- 1 • Master PIPP Reporting – A record of all PIPP related activities and  
2 participation;
- 3 • Discount Activity Report – Tracking the PIPP discounts applied to  
4 Bundled and CCA customers’ accounts for purposes of cost  
5 recovery;
- 6 • Ineligibility Report – Tracking accounts that are no longer eligible for  
7 PIPP and their ineligibility reason(s);
- 8 • CCA Report – Tracking all CCA enrollment and activity providing  
9 CCAs the required details to accurately calculate PIPP enrolled  
10 customer charges and assist with customer inquiries; and
- 11 • Semi-annual reporting – Compliance reporting conducted on a  
12 semi-annual basis showing current customer enrollment activities.

13 **c. Measurement and Evaluation**

14 In 2023, PG&E incurred approximately \$144,547 in activities related  
15 to Measurement and Evaluation mandated by D.21-10-012. This  
16 expenditure breaks down to the following categories:

- 17 • Contracts: \$238,670;
- 18 • Internal Labor: \$37,229; and
- 19 • Co-funding Reimbursements: -\$131,353.

20 D.21-10-012 specified the research questions that will be included in  
21 the PIPP pilot evaluation report. In 2022, Apprise Inc. was identified as  
22 the successful evaluation contractor. In 2023, in coordination with  
23 PG&E internal labor, Apprise worked to fulfill the Commission order to  
24 develop and deliver pilot metrics for Commission approval on  
25 February 28, 2023. These metrics were subsequently approved by  
26 Commission staff via email on May 15, 2023. Additionally, Apprise  
27 fulfilled the Commission order to develop and deliver the evaluation  
28 work plan for Commission approval on March 16, 2023 with revisions  
29 submitted on April 12, 2023. Throughout 2023, Apprise collaborated  
30 with the Energy Division and IOUs to complete the following activities  
31 related to the evaluation study of the PIPP Pilot:

- 32 • Multiple rounds of data collection and analysis, including monthly  
33 transactions, usage and collections data from January 2019 through  
34 the start of the pilot;

- Formed comparison groups required to assess pilot success based on attributes eligible universe of customers provided by IOUs;
- Completed questionnaire design and preparations for fielding of customer surveys of PIPP participants to understand their experience of the pilot; and
- Completed interviews with CBOs engaged by IOUs to assist in recruiting customers for the pilot to understand CBO experience working with the IOUs.

**d. Marketing and Education**

In 2023, PG&E incurred approximately \$140,490 in activities related to Marketing and Education mandated by D.21-10-012. This expenditure breaks down to the following categories:

- Labor: \$53,857;
- Contracts: \$42,571;
- Materials: \$35,452; and
- Contract Labor: \$8,610.

These activities included developing customer-facing materials for additional acquisition campaigns and supporting communications for enrollment solicitation, including the collaboration with the CBOs to help enroll additional customers. The customer communications were developed in over 20 different acquisition tracts for different customer segments—direct mail to bundled customers, five CCAs, Spanish/English/Chinese, bundled email in Spanish/English/Chinese, East Bay Community Energy (EBCE) email, and tribal outreach.

PG&E’s activities also included the mailing of the communications (including postage) and the processing of customer applications. These activities are represented under the contracts and materials. PG&E coordinated with a number of external vendors to assist in developing and designing the communications, sending out the communications (including postage) and the processing of the customer applications.

1 **F. Medium-Large Commercial and Industrial COVID-19 Disconnection**  
2 **Moratorium Memorandum Account**

3 **1. Background**

4 The purpose of the M-L CDMMA is to track incremental expense related  
5 to the implementation of the CPUC-mandated moratorium on disconnections  
6 for medium-large commercial and industrial customers that was in place  
7 from December 30, 2020 through June 30, 2021.<sup>36</sup> As directed in OP 1 of  
8 D.21-04-015, the Commission authorized PG&E to record “incremental  
9 expense related to implementation of the moratorium, incremental financing  
10 costs, and incremental uncollectibles expense for eligible customers during  
11 the effective period (i.e., if the bad debt expense, subsequently trued up to  
12 actual write-offs, is greater than the adopted amount for rate recovery on a  
13 cumulative basis for the effective period).”<sup>37</sup> In D.21-04-015, the  
14 Commission clarified that PG&E should extend the moratorium “to all  
15 non-residential customers that are not defined as “small business” in [its]  
16 Electric and Gas Rule 1” tariffs and are current on a payment plan.<sup>38</sup>

17 On May 14, 2021, PG&E submitted AL 4432-G/6194-E to establish the  
18 ML-CDMMA pursuant to OP 1 of D.21-04-015. The Commission approved  
19 the ML-CDMMA, effective December 30, 2020.

20 **2. Summary of Program Activities**

21 In 2023, PG&E recorded \$1.2 million in incremental costs to the  
22 ML-CDMMA to identify incremental uncollectibles and financing costs  
23 associated with the moratorium for medium-large commercial and industrial  
24 customers pursuant to D.21-04-015.<sup>39</sup> Table 9-6 identifies the incremental  
25 costs associated with each of these activities and PG&E describes these  
26 activities in further detail below.

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**36** D.21-04-015, pp. 40-41, OP 1.

**37** D.21-04-015, pp. 40-41, OP 1.

**38** D.21-04-015, p. 42, OP 3.

**39** PG&E did not record any implementation costs associated with the moratorium.

**TABLE 9-6**  
**SUMMARY OF 2023 RECORDED COSTS TO ML-CDMMA BY ACTIVITY**  
**(THOUSANDS OF NOMINAL DOLLARS)**

Line No.	Activity	2023 Recorded Costs
1	Incremental Uncollectibles	\$1,021
2	Incremental Financing Costs	195
3	Total	\$1,217

1           **a. Incremental Uncollectibles**

2                     PG&E recorded \$1,021 thousand to the ML-CDMMA for incremental  
3                     uncollectibles.

4                     The incremental uncollectibles were calculated as the difference  
5                     between the bad debt expense versus the authorized uncollectible  
6                     revenues. The bad debt expense was calculated by: taking total bad  
7                     debt expense, allocating a portion of it to medium and large commercial  
8                     and industrial customers based on an allowance for doubtful accounts  
9                     roll forward, and excluding electric transmission. The authorized  
10                    uncollectibles revenues were calculated by multiplying the monthly billed  
11                    and unbilled revenues by the GRC authorized uncollectibles factor. The  
12                    incremental uncollectibles were for the period from December 2020 (per  
13                    D.21-04-015) through September 2021 (per D.21-06-036).

14                    Subsequently, beginning in 2022, the recorded bad debt expense  
15                    was revised to reflect the actual write-offs of accounts receivables once  
16                    they were known, and there were significant true-up revisions to actual  
17                    write-offs that lowered the incremental uncollectibles balance in  
18                    ML-CDMMA.

19           **b. Incremental Financing Costs**

20                    PG&E recorded \$195 thousand to the ML-CDMMA for incremental  
21                    financing costs.

22                    The accounts receivable financing costs were calculated by  
23                    multiplying the monthly average incremental medium and large  
24                    commercial accounts receivable balance by the effective borrowing rate.  
25                    This amount includes costs from December 2020-September 2021, as  
26                    the Commission clarified that the moratorium period for the COVID-19

1 pandemic for medium-large commercial and industrial customers would  
2 run from December 2020 (per D.21-04-015) through September 2021  
3 (per D.21-06-036).

4 **G. Microgrids Memorandum Account**

5 This section demonstrates the reasonableness of approximately  
6 \$111 thousand in expense costs recorded in the Microgrids Memorandum  
7 Account (MGMA) for the 2023 Temporary Generation Program. On November  
8 3, 2022, the Commission issued D.22-11-009 regarding PG&E’s Application  
9 proposing the framework for substation microgrid solutions to mitigate Public  
10 Safety Power Shutoff (PSPS) events and included a requirement that PG&E  
11 track and record costs related to single-season, temporary generators for  
12 substation microgrids pursuant to D.20-06-017 in a new Single-Season,  
13 Temporary Generator subaccount for the 2023 fire season onwards.<sup>40</sup> As  
14 further discussed below, D.20-06-017 authorized PG&E to record the costs for  
15 substation microgrid related programs in the MGMA for subsequent  
16 reasonableness review and cost recovery.<sup>41</sup>

**TABLE 9-7  
SUMMARY OF 2023 TEMPORARY GENERATION PROGRAM COST  
FOR THE SUBSTATION MICROGRIDS WORKSTREAM  
(THOUSANDS OF DOLLARS)**

Line No.	Description	Total Expense
1	Substation Microgrids Workstream	\$111

17 The Temporary Generation Program prepares substations to use locally  
18 sited generation and was a key component of PG&E’s strategy in 2023 to  
19 reduce the potential impact of PSPS events on customers. The following  
20 section describes the substation microgrid workstream, the costs incurred in  
21 2023, and why those costs are reasonable and should be recovered.

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<sup>40</sup> D.22-11-009, p. 74, OP 6.

<sup>41</sup> D.20-06-017, pp. 128-129, OP 12, and OP 14, pp. 130-131, OP 16.

1       **1. Background**

2               PG&E’s Temporary Generation Program implements substation  
3 microgrid solutions to build grid resilience and allow PG&E to maintain  
4 electric service for customers in communities that have a high likelihood of  
5 experiencing a PSPS outage. In 2023, PG&E had a reserve fleet of  
6 temporary mobile generation ready to mitigate customer impacts caused by  
7 PSPS outages. The mobile generators were not used in PSPS events as  
8 there were no impacted transmission lines which in turn did not impact any  
9 substations.

10              PG&E’s Temporary Generation Program was approved as an  
11 incremental mitigation solution utilizing substation microgrids with costs to  
12 be recorded into a new MGMA in D.20-06-017, the Commission’s Track 1  
13 Decision for Rulemaking 19-09-009 (Microgrids and Resiliency  
14 Strategies).<sup>42</sup>

15              On January 21, 2021, the Commission adopted D.21-01-018 (Track 2  
16 Decision), which provides a pathway for utilities seeking to reserve  
17 temporary generation for use at substations during wildfire seasons to track  
18 costs in a memorandum account. In accordance with D.21-01-018, PG&E  
19 modified its Electric Preliminary Statement Part IG (Microgrids Memorandum  
20 Account) to add subaccounts to track and record costs for programs either  
21 explicitly adopted or for which pathways were adopted in the decision for a  
22 utility to utilize the MGMA.<sup>43</sup> On November 3, 2022, the Commission issued  
23 D.22-11-009 regarding PG&E’s Application proposing a framework for  
24 substation microgrid solutions to mitigate PSPS events and included the  
25 requirement that PG&E track and record costs related to single-season,  
26 temporary generators for substation microgrids pursuant to D.20-06-017 in  
27 new Single-Season, Temporary Generator subaccount for the 2023 fire

---

<sup>42</sup> D.20-06-017, p. 129, OPs 13 and 14 (approving the Temporary Generation Program and authorizing the creation of the MGMA to record its costs).

<sup>43</sup> PG&E submitted AL 6096-E-A May 27, 2021.

1 season onwards.<sup>44</sup> The 2023 Temporary Generation Subaccount tracked  
2 incremental expenses for the Temporary Generation Program specifically for  
3 safe to energize substations affected by transmission level PSPS events  
4 during the 2023 fire season.

5 Consistent with the direction in D.22-11-009 and pursuant to  
6 D.20-06-017, this application and supporting testimony is an appropriate  
7 mechanism for seeking recovery of 2023 MGMA costs described in more  
8 detail below.

## 9 **2. Summary of Program Activities**

### 10 **a. 2023 PSPS Season**

11 Following the 2022 PSPS season, PG&E adjusted its 2023  
12 Temporary Generation Program for PSPS mitigation to reflect evolving  
13 circumstances and information obtained from technical and feasibility  
14 studies, as well as input from stakeholders, including customers,  
15 communities, and parties to the Microgrids Rulemaking proceeding.  
16 Program Management Expenses

17 In 2023, PG&E recorded approximately \$111 thousand in expense  
18 to the 2023 Temporary Generation Subaccount for its Temporary  
19 Generation Program – Substation Microgrids Workstream. These  
20 expenses were related to the program management support expenses  
21 for the Temporary Generation Program Management Office (PMO) and  
22 Distributed Generation Enabled Microgrid Services (DGEMS) Program  
23 PMO, as shown in Table 9-8 below.

---

<sup>44</sup> PG&E submitted AL 6787-E December 14, 2022, modifying the MGMA and establishing a subaccount to track and record incremental expenses for the Temporary Generation Program specifically for safe to energize substations affected by transmission level PSPS events during the 2023 fire season, pursuant to D.22-11-009 (Framework for Substation Microgrid Solutions to Mitigate PSPS Decision).

**TABLE 9-8  
2023 RECORDED EXPENSES  
SUBSTATION MICROGRIDS WORKSTREAM  
(THOUSANDS OF DOLLARS)**

Line No.	Program Management Costs	Total Expense
1	Electric Operations Temp Gen PMO	\$47
2	Energy Policy and Procurement DGEMS PMO	64
3	Total	\$111

1                    These PMO expenses were related to PG&E’s analysis of approved  
2 criteria for pre-staged TG at substations and determining the need for  
3 pre-staging. PG&E utilized an analysis of 10-year historical data to  
4 determine the substations most likely to be impacted by potential PSPS  
5 events using 10+ events and 100+ customers criteria—the CPUC’s  
6 general criteria in determining if a substation is in scope to receive  
7 temporary generation. Based on PG&E’s analysis, no substation met  
8 the established CPUC’s criteria. Accordingly, for the 2023 PSPS  
9 season, no substations were pre-staged with temporary generation.  
10 PG&E’s analysis activities were key to reaching this conclusion,  
11 ultimately saving costs related to pre-staging for the benefit of  
12 customers.

13                    **b. Electric Operations Temporary Generation Program**  
14                    **Management Office**

15                    The Temporary Generation PMO coordinates and directs the  
16 operational readiness of the temporary generation workstreams. The  
17 team also coordinates cross-workstream needs, including prioritization  
18 policy guidance, communications, data requests, staffing and training  
19 the Emergency Operation Center Temporary Generation Branch, and  
20 change management.

21                    **c. Energy Policy and Procurement DGEMS PMO**

22                    The Distributed Generation-Enabled Microgrid Services (DGEMS)  
23 PMO coordinated all permanent and temporary generation workstreams  
24 for substation microgrids, including regulatory, project development,  
25 finance, site selection, construction, and permitting.

1 PG&E subsequently revised the Distributed Generation -Enabled  
2 Microgrid Services (DGEMS) Program based on:

- 3 • Additional feasibility analysis regarding the ability to construct and  
4 operate new permanent generation;
- 5 • New information concerning indirect impacts at certain substations  
6 on the DGEMS Program priority list; and
- 7 • Additional technical analysis of wires.

8 Based on continuous system enhancement undergrounding,  
9 hardening, weather modeling, PG&E was able to prudently deploy its  
10 2023 Temporary Generation Program. For the reasons explained  
11 above, PG&E requests that all costs incurred during 2023 and recorded  
12 to the MGMA Temporary Generator subaccount for the 2023 fire season  
13 be found reasonable and approved in full for cost recovery.

#### 14 **H. Conclusion**

15 This chapter describes incremental costs that PG&E recorded to implement  
16 required activities in the ECPMA, CPPMA, DMA, PIPPMA, M-L CDMMA, and  
17 MGMA. As discussed in this chapter, the costs that PG&E incurred to comply  
18 were reasonable and should be approved in their entirety.

**PACIFIC GAS AND ELECTRIC COMPANY**

**CHAPTER 10**

**INCREMENTALITY**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 10  
INCREMENTALITY

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1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2   **CHAPTER 10**  
3   **INCREMENTALITY**

4   **A. Introduction**

5           In this application, Pacific Gas and Electric Company (PG&E) requests the  
6   California Public Utilities Commission (CPUC or Commission) find reasonable  
7   certain costs recorded in the following memorandum and balancing accounts:

- 8   1) Catastrophic Event Memorandum Account (CEMA);  
9   2) Gas Statutes Regulations and Rules Memorandum Account (GSRRMA);  
10  3) Gas Storage Balancing Account (GSBA);<sup>1</sup>  
11  4) Climate Adaption Vulnerability Assessment Memorandum Account  
12     (CAVAMA);  
13  5) Microgrids Memorandum Account (MGMA);  
14  6) Coronavirus (COVID-19) Pandemic Protections Memorandum Account  
15     (CPPMA);  
16  7) Disconnections Memorandum Account (DMA);  
17  8) Emergency Consumer Protections Memorandum Account (ECPMA);  
18  9) Percentage of Income Payment Plan Memorandum Account (PIPPMA); and  
19  10) Medium-Large Commercial and Industrial COVID-19 Disconnection  
20     Moratorium Memorandum Account (ML-CDMMA).

21           This chapter demonstrates the incrementality of the costs requested in this  
22   application.<sup>2</sup> Incremental costs are those labor, equipment, material, contract,  
23   and other support costs associated with work that has not been forecasted nor  
24   authorized in PG&E’s General Rate Case (GRC), Gas Transmission and  
25   Storage (GT&S), or other cost-recovery proceedings. PG&E has determined  
26   that the costs presented in this application are incremental using the following  
27   criteria:

- 28   • The request is for CPUC jurisdictional work; and

---

1   As explained further below, incrementality does not apply to costs recorded to balancing accounts. For the GSBA, all costs recorded to that account have been authorized for recovery, but are subject to reasonableness review.

2   See Chapter 1 for a summary of costs requested in this application.

1 • The costs were not forecasted for inclusion in and are incremental to  
2 amounts authorized in PG&E's 2019 GT&S, 2020 GRC, 2023 GRC, or any  
3 other cost recovery proceeding.

4 In addition, PG&E applied additional account-specific incrementality criteria  
5 for the following accounts:

- 6 • For the CEMA, the costs would not have been incurred if not for a CEMA  
7 eligible catastrophic event;
- 8 • For the CPPMA, DMA, ECPMA, ML-CDMMA, and PIPPMA (collectively  
9 referred to as the Customer Care Chapter Memorandum Accounts) and the  
10 CAVAMA and MGMA specifically, the associated programs emerged after  
11 the 2020 GRC and 2023 GRC were forecasted, and the costs would not  
12 have been incurred if not for state law and/or a Commission order to  
13 conduct work and track the costs in these accounts; and
- 14 • For the GSRRMA, the costs associated with new state and federal  
15 regulations arose following the Commission's approval of PG&E's 2019  
16 GT&S.

17 In short, the costs included in this application, other than GSBA, are  
18 incremental because the costs relate to work that is new, or in addition to, what  
19 was contemplated by PG&E's existing authorized base rates. As described in  
20 Section C, costs associated with this incremental work are tracked in the  
21 appropriate accounts, separate from the accounts used to track costs in PG&E's  
22 base rates. In addition, the costs are tied to specific work orders to ensure that  
23 costs have not already been recovered through existing rates, other  
24 proceedings, or any other cost-recovery mechanism. These accounting  
25 measures help ensure incrementality.

## 26 **B. The Costs for Which PG&E Seeks Recovery Are Incremental**

27 In Section B.1 below, PG&E provides an overview of its activity-based  
28 forecasting methodology, which is foundational to the incrementality of the  
29 activities and costs sought in this application. In Section 2, PG&E addresses the  
30 incrementality of the costs recorded to each memorandum account under review  
31 in this application.

1           **1. PG&E’s Activity-Based Forecasting**

2           **a. Overview**

3           In forecasting GRC and GT&S work, PG&E primarily uses  
4           activity-based forecasting (as opposed to cost element-based  
5           forecasting). PG&E’s activity-based GRC and GT&S forecasts consist  
6           of cost estimates based upon planned scopes and schedules for work  
7           that are not tied to particular staffing levels and other resources. As an  
8           example, for Electric Distribution activities, PG&E develops its GRC  
9           forecast based on the anticipated volume and complexity of work that is  
10          required to operate and maintain a safe and reliable electric system, in  
11          compliance with established policies and requirements. At the time a  
12          GRC forecast is developed, the staffing levels and resources to execute  
13          work activities are not specified because they are not yet fully  
14          determined. Ultimately with activity-based forecasts, the activities will  
15          be completed with internal PG&E employees or contracted vendors.  
16          The GRC forecast approved by the Commission does not include the  
17          specific internal employees or contractors that will be assigned to the  
18          work. The specific resources to complete the work are assigned closer  
19          in time to the execution of the work. When the work is executed,  
20          employees record their time to the orders, contract and material costs  
21          are applied, and additional costs are allocated to the orders in the form  
22          of overheads as applicable to the type of work.

23          In addition, PG&E’s GRC and GT&S forecasts typically present an  
24          aggregate cost for an activity without capturing the specific cost  
25          components, such as labor costs (salaries and benefits), applicable  
26          overheads, materials, etc. For this reason, PG&E does not forecast  
27          specific labor in its GRC or GT&S. Further, PG&E’s headcount and  
28          support functions to complete work are not forecasted directly.  
29          Moreover, PG&E’s methodology for forecasting is not so granular that  
30          materials or distinct allocations are explicitly identified in the rate case  
31          forecast.

32          In sum, PG&E’s activity-based forecasts are based upon volume  
33          and complexity of the work, regardless of how the work will be executed  
34          or by whom. PG&E does not forecast in the GRC or GT&S costs for its

1 internal companywide labor force. PG&E forecasts costs for activities,  
2 regardless of how many employees it will have access to in any given  
3 rate case period. What is more, given that the GRC forecast does not  
4 contain specific labor or overhead costs, the Commission's GRC and  
5 GT&S decisions do not adopt a specific labor component or specific  
6 staffing by project or work activity. For this reason, when the  
7 Commission issues its GRC or GT&S decision, there are no imputed  
8 adopted costs for straight-time labor or overheads or any other cost  
9 component. Nor does the decision specify the number of employees or  
10 contractors associated with the approved forecast.

11 **b. Benefits of Activity-Based Forecasting**

12 PG&E's activity-based forecasting (and the Commission's approval  
13 of this type of GRC forecast) provides PG&E flexibility to use internal  
14 and/or external resources as necessary to execute work. It further  
15 allows PG&E staff and organizations to support work across multiple  
16 rate cases and regulatory accounts and maximize productivity of its  
17 resources. In allowing for workforce flexibility, activity-based planning  
18 and forecasting is more cost effective for customers as it allows for  
19 PG&E to deploy internal and external resources to work across multiple  
20 activities as necessary. As an example, PG&E can use internal and  
21 external resources to work on activities not contemplated (or funded) in  
22 the GRC that may arise due to emergencies, new laws or Commission  
23 decisions, and changing priorities after a GRC decision has been  
24 issued. If PG&E did not have this flexibility, PG&E conceivably would  
25 have a larger employee and contractor population—one group to work  
26 on GRC activities and a separate group to work on new work not  
27 included in a GRC. Overall costs would increase.

28 In prior CEMA reasonableness review proceedings, intervenors  
29 have asserted that all PG&E employee-straight-time costs and  
30 overheads are funded in the GRC and that only costs associated with  
31 newly hired employees or contractors, or employees set-aside for CEMA  
32 work, would be allowed for recovery as incremental costs. Hiring new  
33 employees or contractors to respond to CEMA events as they occur  
34 would be inefficient. PG&E would not be able to quickly respond to

1 CEMA events if it had to hire new employees or contractors. Setting  
2 aside employees specifically for CEMA work would also be inefficient.  
3 PG&E would incur significantly increased costs, if it set aside employees  
4 on stand-by for CEMA work only and had other non-CEMA employees  
5 committed to perform certain other types of work excluding CEMA. In  
6 either case, PG&E would lose flexibility and cost-effectiveness when  
7 responding to a CEMA event. PG&E's activity-based forecasting  
8 approach avoids these disadvantages, because PG&E does not  
9 forecast for or set aside specific employees, whether CEMA or  
10 non-CEMA work.

11 **2. Incrementality of Costs Recorded to Memorandum Accounts Under**  
12 **Review in This Proceeding**

13 PG&E addresses the incrementality of costs recorded to the  
14 memorandum accounts under review in this application in further detail in  
15 the following sections. PG&E also explains in further detail why  
16 incrementality issues do not apply to balancing accounts. PG&E's  
17 discussion is organized as follows:

- 18 • Subsection (a) – Incrementality of 2023 CEMA Costs;
- 19 • Subsection (b) – Incrementality of Other Memorandum Accounts Under  
20 Review; and
- 21 • Subsection (c) – Discussion of GSBA.

22 **a. Incrementality of 2017 – 2023 CEMA Costs**

23 Evidence of incrementality for 2017 – 2023 CEMA costs is  
24 demonstrated by the following: (1) the Commission did not authorize  
25 CEMA straight-time labor costs in the 2023 GRC, and non-straight-time  
26 labor CEMA costs were excluded from PG&E's forecast in the 2023  
27 GRC; (2) contracts, external labor, overtime (OT), and double Time (DT)  
28 costs comprise most of the total labor costs for PG&E's CEMA event  
29 response; (3) the Butte Community Rebuild Program costs for the  
30 various wildfire mitigation, gas compliance, and other work performed in  
31 the Town of Paradise and the surrounding areas included in the 2020  
32 GRC were recorded in the WMBA and recovered through the

1 securitization process and are not being requested here;<sup>3</sup> (4) the Butte  
2 Community Rebuild Program costs included in the 2023 GRC were  
3 explicitly removed from cost recovery in the GRC and PG&E was  
4 directed to recover them in this proceeding; and (5) all of the CEMA  
5 costs requested in this application have been audited by Ernst & Young  
6 (EY) and determined to be incremental. The results of the EY audit  
7 support the incrementality of the costs, are summarized in Section E of  
8 this chapter and presented in full Appendix A.

9 **1) The 2023 GRC Supports CEMA Incrementality for 2023 CEMA**  
10 **Costs**

11 As noted above, PG&E's GRC forecasts are generally based on  
12 the anticipated costs to complete activities, not the specific mix of  
13 resources that may be utilized to complete the activities. While the  
14 activity-based forecasts consider various cost components such as  
15 materials, contracts, and labor, those costs are not specifically  
16 forecasted at the GRC-submission stage. Under this approach, and  
17 in the 2023 GRC, all CEMA costs were removed from recorded  
18 costs used to forecast Major Emergency Balancing Account (MEBA)  
19 costs.<sup>4</sup> Had CEMA activities been included, PG&E's 2023 GRC  
20 forecast for MEBA would have been higher.

21 In addition, while PG&E's 2023 GRC forecast included a CEMA  
22 straight-time labor forecast and a proposal to establish the CEMA  
23 Straight-Time Labor Balancing Account (CESTLBA) as a two-way  
24 balancing account to track and record actual costs, the  
25 Commission's final decision rejected this forecast and proposal.<sup>5</sup>  
26 As such, the Commission did not authorize recovery of CEMA  
27 straight-time labor in the 2023 GRC, leaving the recovery of CEMA  
28 costs to be addressed in an after-the-fact reasonableness review in  
29 a CEMA review proceeding. The Commission concluded:

---

3 The incrementality of Community Rebuild costs is discussed in Chapter 3.

4 See Attachment D (A.21.06.021, Exhibit (PG&E-4), WP-6-8, Workpaper Table 6-8 and WP 6-18, Workpaper Table 6-18).

5 D.23-11-069, pp. 321-324. See A.21.06.021, Exhibit (PG&E-4), pp. 6-24, line 1 to pp. 6-27, line 14 for PG&E's request for the CESTLBA.

1 PG&E should remove these costs from its forecast for MWC IF  
2 and that all CEMA straight-time labor expenses should continue  
3 to be recorded in CEMA and recovered under the CEMA  
4 process, rather than through the forecasting process  
5 established in this proceed[ing].<sup>6</sup>

6 In addition, the Commission found:

7 ...it [is] reasonable to remove both PG&E's expense forecast  
8 and capital forecasts for CEMA straight-time labor.<sup>7</sup>

9 The Commission then made particular findings removing all  
10 CEMA straight-time labor across various Major Work Categories.<sup>8</sup>  
11 Consequently, the CEMA straight-time labor costs under review  
12 were not included in the 2023 GRC forecast for MEBA or any other  
13 account, they were specifically removed by the Commission, and  
14 they are incremental.

15 Further, PG&E made no request for non-straight-time labor  
16 CEMA costs in the 2023 GRC. Nor was there a recommendation  
17 from intervenors that any CEMA costs be added into the forecast.  
18 Under the final 2023 GRC decision, there is \$0 imputed for  
19 straight-time or non-straight-time labor CEMA costs.

20 In sum, PG&E's 2023 CEMA request in this application is  
21 entirely incremental and not included in the GRC.

## 22 **2) The Breakdown of Labor Costs Supports the Incrementality of** 23 **2024 WMCE Costs**

24 Most of the labor for this filing is not considered internal  
25 straight-time labor. Table 10-1 breaks down the various labor  
26 components. The analysis shows that internal straight-time labor  
27 accounts for only 5 percent of the total costs and most labor costs  
28 are associated with contract and external labor, OT, and DT, which  
29 historically have not been disputed as being incremental. As noted  
30 above, this cost breakdown demonstrates that PG&E mostly relies

---

6 D.23-11-069, p. 323.

7 D.23-11-069, p. 324.

8 D.23-11-069, p. 324.

1 upon external labor when responding to events that are captured in  
2 this cost recovery application.

**TABLE 10-1**  
**COST ELEMENT TYPE BREAKDOWN THROUGH DECEMBER 2023**  
**(THOUSANDS OF DOLLARS)**

Line No.	Cost Element Types	Incremental Request	% of Total Labor
1	Contract and External Labor	\$415,907	69%
2	Labor ST	31,406	5%
3	Labor OT	7,079	1%
4	Labor DT	9,796	2%
5	Other Labor	27,734	5%
6	Materials and Other	108,471	18%
7	Total	\$600,393	100%

Note: ST, OT, DT Labor is PG&E internal labor.

3 **3) Ernst & Young Findings**

4 Finally, CEMA costs requested in this application for the Butte  
5 Community Rebuild Program and the 2023 Winter Storms have  
6 been audited by EY. EY confirmed that these costs are incremental  
7 to any prior-authorized amounts. The results of the EY audit are  
8 summarized in Section E. Chapter 3 discusses Butte Community  
9 Rebuild costs.

10 **b. Incrementality of Other Memorandum Accounts**

11 Costs recorded to the Customer Care Memorandum Accounts  
12 (CPPMA, DMA, ECPMA, and PIPPMA), CAVAMA, and MGMA were not  
13 forecasted nor authorized in the 2019 GT&S, 2020 GRC, and 2023  
14 GRC. The costs recorded to these accounts are for new programs or  
15 expanded activities that emerged after those filings for which the  
16 Commission authorized PG&E to establish memorandum accounts to  
17 track and record costs.

18 Importantly, the activities associated with these memorandum  
19 accounts were not simply a matter of PG&E's internal decision-making  
20 to add work or change its GRC plan. Rather, as described below, these  
21 activities were implemented to meet the requirements of new legislation

1 and/or CPUC orders that were not foreseeable when PG&E developed  
2 its GRC and GT&S forecasts.

3 **1) COVID-19 Pandemic Protections Memorandum Account**  
4 **(CPPMA)**

5 The CPPMA emerged after the 2020 GRC was filed.

6 On April 16, 2020, the Commission adopted Resolution  
7 (Res.) M-4842, which directed PG&E to offer applicable emergency  
8 customer protections to residential and small business customers  
9 through April 16, 2021. The purpose of the CPPMA is to record and  
10 track incremental costs associated with implementing emergency  
11 customer protections for residential and small business customers  
12 related to the COVID-19 pandemic.

13 PG&E's 2022 CPPMA costs are incremental to base rates. This  
14 memorandum account was created in response to the COVID-19  
15 pandemic. Thus, CPPMA costs were not forecasted or authorized  
16 in the 2019 GT&S, 2020 GRC, or 2023 GRC.

17 The CPPMA is further described in Chapter 9 of PG&E's  
18 testimony.

19 **2) Disconnections Memorandum Account**

20 The changes governing the Disconnections Memorandum  
21 Account (DMA) emerged after the 2020 GRC was filed.

22 The purpose of the DMA is to track incremental costs  
23 associated with implementing the requirements of Decision  
24 (D.) 20-06-003, which includes rules and other changes designed to  
25 reduce the number of residential customer disconnections and  
26 improve reconnection processes for disconnected customers.<sup>9</sup>  
27 D.20-06-003 supports the Senate Bill 598 (2017-2018 Reg. Sess.)  
28 directive for the CPUC to, among other things, develop rules,  
29 policies, or regulations with a goal of reducing the statewide  
30 disconnection rate of gas and electric utility customers by January 1,  
31 2024.<sup>10</sup>

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9 D.20-06-003, p. 2.

10 D.20-06-003, p. 5.

1 PG&E's 2022 DMA costs are incremental to base rates.  
2 D.20-06-003 was issued in June 2020, and DMA costs were not  
3 forecasted or authorized in the 2019 GT&S, 2020 GRC, or 2023  
4 GRC. In 2021, PG&E transferred six employees to the Arrearage  
5 Management Program (AMP) charged to the DMA and backfilled  
6 their previous positions. These resources are incremental costs as  
7 the resources are solely dedicated to working on accounts that  
8 enroll in the AMP which was implemented through D.20-06-003.

9 The DMA is further described in Chapter 9 of PG&E's testimony.

### 10 **3) Emergency Consumer Protections Memorandum Account**

11 The Emergency Consumer Protection Program emerged after  
12 the 2020 GRC was filed.

13 The purpose of the Emergency Consumer Protections  
14 Memorandum Account (ECPMA) is to record incremental costs  
15 associated with the implementation of PG&E's Emergency  
16 Consumer Protection Plan. PG&E implements its Emergency  
17 Consumer Protection Plan when the California Governor's Office or  
18 the President of the United States proclaims a state of emergency  
19 due to a disaster that has either resulted in the loss or disruption of  
20 the delivery or receipt of utility service and/or resulted in the  
21 degradation of the quality of utility service, as defined in  
22 D.19-07-015.<sup>11</sup> PG&E records to the ECPMA incremental costs for  
23 providing temporary service, discontinuing billing, and stopping  
24 estimated usage for customers impacted by disasters.

25 The ECPMA became effective by AL 4014-G/5378-E in October  
26 2018 just prior to the filing of the 2020 GRC in December 2018 and  
27 too late to forecast this program in the GRC.

28 PG&E's costs recorded to the ECPMA are separately tracked  
29 and recorded for each qualifying disaster and are not forecasted in a  
30 GRC.<sup>12</sup> PG&E's 2022 ECPMA costs are incremental to base rates

---

<sup>11</sup> D.19-07-015, p. 16.

<sup>12</sup> D.18-08-004, p. 22, Ordering Paragraph 3.

1 because they were not forecasted or authorized in the 2019 GT&S,  
2 2020 GRC, or 2023 GRC.

3 The ECPMA is further described in Chapter 9 of PG&E's  
4 testimony.

#### 5 **4) Percentage of Income Payment Plan Memorandum Account**

6 The Percentage of Income Payment Plan (PIPP) Program  
7 emerged after the 2020 GRC was filed.

8 The purpose of the Percentage of Income Payment Plan  
9 Memorandum Account (PIPPMA) is to track incremental costs  
10 associated with implementing the requirements of D.21-10-012. On  
11 December 15, 2022, the Commission adopted D.21-10-012, which  
12 includes PG&E's proposal for the PIPP Pilot to determine if levelized  
13 monthly bills that are capped based on a percentage of income can  
14 reduce the number of low-income households that are at risk for  
15 disconnection.

16 The 2022 PIPP Program and the PIPPMA costs were not  
17 forecasted in the 2019 GT&S, 2020 GRC or 2023 GRC and are  
18 incremental to base rates. The PIPPMA is further described in  
19 Chapter 9 of PG&E's testimony.

#### 20 **5) Climate Adaptation Vulnerability Assessment Memorandum** 21 **Account**

22 Costs for activities recorded to the Climate Adaptation  
23 Vulnerability Assessment Memorandum Account (CAVAMA)  
24 emerged after the 2020 GRC was filed.

25 On April 26, 2018, in recognition of the increasing impacts of  
26 climate -driven natural hazards on California's energy system, the  
27 Commission initiated Rulemaking (R.)18-04-019 to integrate climate  
28 change adaptation matters in relevant Commission proceedings. To  
29 support the new requirements established by rulings D.19-10-054  
30 and D.20-08-046,<sup>13</sup> the Commission directed the investor -owned

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<sup>13</sup> D.19-10-054 established definitions, preferred data sources, and standards for planning assumptions while D.20-08-046 defined Disadvantaged Vulnerable Communities (DVC), directed engagement with DVCs regarding climate vulnerability assessment, and required IOUs to file climate vulnerability assessments every four years.

1 utilities (IOU) to establish “Climate Adaptation Vulnerability  
2 Assessment Memorandum Accounts” (CAVAMA) “for the purpose of  
3 tracking costs directly related to the vulnerability assessments  
4 ordered...,” as well as “incremental costs associated with  
5 community outreach plans and activities related to Community  
6 Engagement Plans and surveys.

7 In compliance with D.20-08-046, on September 11, 2020, PG&E  
8 submitted AL 4309-G/5946-E to establish the Electric Preliminary  
9 Statement Part II – Climate Adaptation Vulnerability Assessment  
10 Memorandum Account and Gas Preliminary Statement Part FI –  
11 Climate Adaptation Vulnerability Assessment Memorandum  
12 Account. On October 5, 2020, the Commission issued a disposition  
13 letter approving AL 4309-G/5946-E effective September 11, 2020.

14 Costs requested for the CAVAMA were not forecasted in the  
15 2019 GT&S, 2020 GRC or 2023 GRC and are incremental to base  
16 rates.

17 The CAVAMA is further described in Chapter 8 of PG&E’s  
18 testimony.

## 19 **6) Microgrids Memorandum Account**

20 The Microgrids Program emerged after the 2023 GRC was filed.  
21 Following the 2019 Public Safety Power Shutoff events, PG&E  
22 received feedback from customers, regulators, and legislators that  
23 we need to find better alternatives to turning off customer power.  
24 One of the ways PG&E accomplishes that is through microgrids.  
25 D.20-06-017 authorized PG&E to record costs for microgrid-related  
26 programs to the Microgrids Memorandum Account (MGMA) for  
27 reasonableness review and cost recovery.

28 MGMA costs were not forecasted in the 2023 GRC and PG&E’s  
29 2023 MGMA costs are incremental to GRC base rates.

30 Additional details about the MGMA can be found in Chapter 9 of  
31 PG&E’s testimony.

1                   **7) Medium-Large Commercial and Industrial COVID-19**  
2                   **Disconnection Moratorium Memorandum Account**

3                   Costs for activities recorded to the Medium Large Commercial  
4                   and Industrial COVID 19 Disconnection Moratorium Memorandum  
5                   Account (ML-CDMMA) emerged after the 2020 GRC was filed.

6                   The purpose of the ML-CDMMA is to track incremental expense  
7                   related to the implementation of the moratorium, incremental  
8                   financing costs, and incremental un-collectibles expense (i.e., if the  
9                   bad debt expense, subsequently trued up to actual write-offs, is  
10                  greater than the adopted amount for rate recovery on a cumulative  
11                  basis for the effective period) for eligible customers during the  
12                  effective period. The effective period is defined as beginning on  
13                  December 30, 2020 and ending on September 20, 2021, or on the  
14                  same ending date as the residential and small business COVID-19  
15                  customer protections adopted in Res.M-4842 and Res.M-4849.

16                  Additional details about the ML-CDMMA can be found in  
17                  Chapter 9 of PG&E’s testimony.

18                   **8) Gas Statutes Regulations and Rules Memorandum Account**

19                  The Gas Statutes Regulations and Rules Memorandum Account  
20                  (GSRRMA) was adopted by the Commission in the 2019 GT&S  
21                  Rate Case Decision (D.19-09-025). It tracks actual expenses and  
22                  capital expenditures to comply with any new federal or state  
23                  statutes, regulations and rules, or new or changed interpretation by  
24                  a regulatory body of statutes, regulations or rules, that are issued  
25                  between Rate Case funding cycles for which PG&E has not been  
26                  able to incorporate forecast costs into a rate case and which are not  
27                  already addressed and recorded in another account. Recovery of  
28                  these costs is subject to a reasonableness review in a subsequent  
29                  GRC. The GSRRMA was continued in the 2023 GRC cycle  
30                  (2023-2026).

31                  Additional details about the GSRRMA can be found in Chapter 6  
32                  of PG&E’s testimony.

1 **c. Gas Storage Balancing Account**

2 The Gas Storage Balancing Account GSBA was adopted by the  
3 Commission in the 2019 GT&S Rate Case Decision (D.19-09-025) due  
4 to the uncertainty around the implementation of new regulations from  
5 the California Department of Conservation, California Geologic Energy  
6 Management Division (CalGEM) governing gas storage assets. The  
7 implementation of CalGEM gas storage regulations continues to evolve  
8 and the costs that PG&E will incur to comply with these requirements  
9 can vary substantially based on the implementation plan approved by  
10 CalGEM. In the 2019 GT&S Rate Case, PG&E proposed, and The  
11 Utility Reform Network (TURN) supported, a two-way balancing account  
12 (i.e., the GSBA) given the regulatory uncertainty. The Commission  
13 adopted this proposal, finding that there was significant uncertainty with  
14 the costs associated with implementation of CalGEM’s regulations. The  
15 GSBA was continued in the 2023 GRC cycle (2023-2026).

16 The purpose of the GSBA is to track and record actual expenses  
17 and capital revenue requirements based on actual capital expenditures  
18 over the 2023 GRC cycle, compared to the adopted expenses and  
19 capital revenue requirements based on the adopted capital expenditures  
20 for PG&E’s natural gas storage facilities (excluding Gill Ranch). The  
21 GSBA is a two-way balancing account and subject to reasonableness  
22 review. As such, incrementality does not apply to costs recorded to the  
23 GSBA. All costs recorded to the GSBA have been authorized for  
24 recovery, subject to reasonableness review. After completion of the  
25 reasonableness review, disposition of the account balance at the end of  
26 the 2023 GRC cycle will be determined through the CFCA and NCA  
27 balancing accounts in the Annual Gas True-up advice letter process.

28 Additional details about the GSBA can be found in Chapter 7 of  
29 PG&E’s testimony.

30 **C. Incrementality Standards – Orders and Financial Tracking**

31 All costs for which PG&E seeks recovery in this application were tracked in  
32 distinct orders that were tagged with identifiers different from those that are  
33 included in PG&E’s GRC or other cost recovery mechanisms. PG&E uses

1 specific fields in its accounting software (SAP) to track order costs and direct  
2 them into specific accounts for recovery.

3 SAP is PG&E's software solution for tracking costs. PG&E uses a field  
4 called Balancing Account Receiver Cost Center (BARCC) that assigns each  
5 order to a specific account like those requested in this application, GRC and all  
6 other base, balancing, and memorandum accounts. Each order can only be  
7 assigned to one account in the BARCC field, and each account is recovered in a  
8 specific cost recovery proceeding. In addition to the BARCC field, PG&E uses  
9 other fields to provide additional information about the work and where the costs  
10 should be recovered. Examples of the additional fields are MWC (Major Work  
11 Category), MAT (Maintenance Activity Type), and MRI – NY (Management  
12 Reporting Item – New Year).

13 In preparing a cost recovery application such as this one, PG&E pulls the  
14 data from SAP for costs associated with the rate case being prepared. PG&E  
15 then conducts quality assurance at the order level to check the data set and  
16 assure the work in each order is appropriate for the rate case being prepared.  
17 For example, when preparing the 2024 WMCE, subject matter experts (SME)  
18 reviewed the data to assure that the final recorded cost dataset did not contain  
19 orders for costs that are recovered or pending in the GRC, the Wildfire and Gas  
20 Safety Costs proceeding (WGSC) (A.23-06-008), prior WMCEs, or any other  
21 proceeding.

22 The workpapers in this application present the costs associated with orders  
23 that have been quality assured by PG&E SMEs for each balancing and  
24 memorandum account requested. PG&E also retained EY to analyze the orders  
25 for certain accounts, and EY found no evidence of costs being recorded in more  
26 than one account. See Section E below and Chapter 13 for more information on  
27 EY's analysis. Accordingly, this application is the appropriate mechanism to  
28 recover costs incurred for the events and work described herein. This is  
29 applicable to all costs incurred, and, as such, all costs captured in these orders  
30 are incremental to other recovery mechanisms' revenues.

#### 31 **D. Application of Overheads to Incremental Costs**

32 In 2016, PG&E modified its reporting of companywide and business unit  
33 overhead costs. The "New Cost Model" change made in 2016 was used in the

1 2020 GRC and 2023 GRC.<sup>14</sup> Starting in the 2020 GRC, PG&E also made other  
 2 changes to how overheads apply to CEMA.

3 CEMA expense does not typically receive overhead costs because  
 4 overhead costs are forecasted and recovered in the GRC. CEMA capital orders  
 5 typically only receive the following overheads, which are not forecasted in the  
 6 GRC: fleet, payroll taxes, and minor materials.<sup>15</sup> This general practice was  
 7 applied in this case for all CEMA accounts except Butte Community Rebuild  
 8 Program costs.

9 Figure 10-1 depicts which overheads apply to which types of accounts in  
 10 this application: Overheads applied to the non-CEMA memo accounts are  
 11 shown in columns B and D; overheads applied to CEMA are shown in  
 12 columns C and E.

**FIGURE 10-1  
 APPLICATION OF OVERHEADS TO MEMORANDUM AND BALANCING ACCOUNTS**

	A	B	C	D	E
		Expense		Capital	
		Non-CEMA Memo and Balancing Accounts Non-Earnings Expense	Non-Earning Expense CEMA	Non-CEMA Memo and Balancing Account Capital	Capital CEMA
Line #	Overheads				
1	Capitalized A&G			X	
2	Paid Time Off	X		X	
3	Indirect Labor	X		X	
4	Operational Management and Support			X	
5	Fleet			X	X
6	Material Burden	X		X	
7	Building Services			X	
8	IT Device Services			X	
9	Benefits			X	
10	Payroll Taxes			X	X
11	Minor Material	X		X	X

<sup>14</sup> The old and new Cost Model are discussed at length in A.18-12-009, HE-69: Exhibit (PG&E-12), Chapter 3.

<sup>15</sup> See A.18-12-009, HE-17: Exhibit (PG&E-4), p. 18-18, lines 7-29; p. 18-23, line 1 to p. 18-24, line 4; and p. 18-27, line 13 to p. 18-28, line 13.

1 Generally, when PG&E requests funding in the GRC, the overhead amounts  
2 are embedded in the forecasts in accordance with Figure 10-1 above. PG&E  
3 expects to recover funding for overheads in various accounts, whether base  
4 GRC expense, base GRC capital, or memorandum/balancing account programs.  
5 The overhead amounts included in cost recovery requests for the  
6 memorandum/balancing account programs are incremental to what was already  
7 forecast and authorized in the 2020 GRC and the 2023 GRC.

#### 8 **E. Ernst & Young Independent Audit Report**

9 PG&E engaged EY to conduct an analysis of Butte Community Rebuild  
10 Program costs and the other CEMA costs included in this application. For  
11 purposes of the audit, EY reviewed a population of \$1,723 million of costs. The  
12 scope of the analysis consisted of CEMA storm costs from July 2023 to  
13 December 2023 (as well as costs incurred for other catastrophic events not  
14 previously filed for from January 2023 to June 2023) and Butte Community  
15 Rebuild costs from October 2018 to December 2023. In addition to the  
16 analytical procedures and transaction testing, EY also considered the  
17 incrementality of the CEMA costs compared to the applicable GRC, the WGSC  
18 proceeding (A.23-06-008), and other cost recovery mechanisms. EY found no  
19 material evidence that would raise questions relating to PG&E's conclusions  
20 that: (1) the costs were incurred for the activities set forth in the corresponding  
21 relevant CPUC approved WMCE accounts; (2) the costs were accurately  
22 recorded; and (3) there is no evidence of costs recorded to more than one  
23 account. Further, EY confirmed that any observations of possible deviations  
24 within the cost data provided were not material to the overall costs incurred.  
25 See Appendix A for the complete EY analysis.

#### 26 **F. Conclusion**

27 This chapter demonstrates that the programs and activities requested in this  
28 application are incremental for the memorandum accounts and reasonable for  
29 the GSBA. The costs for which PG&E seeks recovery are for activities that are  
30 different from, and in addition to, those forecast in the 2019 GT&S, 2020 GRC,  
31 2023 GRC, and other cost-recovery proceedings. PG&E has tracked these  
32 costs separately, and only incremental costs are requested in this application.

- 1 The costs are therefore eligible for recovery based on their incrementality to
- 2 existing rates.

**PACIFIC GAS AND ELECTRIC COMPANY**

**CHAPTER 11**

**ACCOUNTING OF COSTS**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 11  
ACCOUNTING OF COSTS

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1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2   **CHAPTER 11**  
3   **ACCOUNTING OF COSTS**

4   **A. Introduction**

5           This chapter presents adjustments to Pacific Gas and Electric Company's  
6           (PG&E) recorded costs incurred by Electric Distribution, Gas Transmission and  
7           Distribution, Power Generation, Shared Services, Corporate Services,  
8           Information Technology, and Customer Care for the following accounts:

- 9           • Catastrophic Event Memorandum Account (CEMA);  
10          • Gas Statutes Regulations and Rules Memorandum Account (GSRRMA);  
11          • Gas Storage Balancing Account (GSBA);  
12          • Climate Adaptation Vulnerability Assessment Memorandum Account  
13          (CAVAMA);  
14          Other Miscellaneous Memorandum Account:  
15          • Emergency Consumer Protections Memorandum Account (ECPMA);  
16          • COVID-19 Pandemic Protections Memorandum Account (CPPMA) –  
17          Customer Protections;  
18          • CPPMA – Incremental Uncollectibles;  
19          • Disconnections Memorandum Account (DMA);  
20          • Percentage of Income Payment Plan Memorandum Account (PIPPMA);  
21          • Medium-Large Commercial and Industrial COVID-19 Disconnection  
22          Moratorium Memorandum Account (ML-CDMMA); and  
23          • Microgrids Memorandum Account (MGMA).

24          The recorded costs for these accounts are presented in Chapters 2  
25          through 9. This chapter describes the following adjustments:

- 26          1) The removal of costs relating to Ernst & Young's (EY) recommendations that  
27               are already reflected in Chapters 2 through 5; and  
28          2) The removal of the CEMA capitalized administrative and general (A&G)  
29               costs.

30          The adjustments to recorded costs are described more fully below. The  
31          adjusted recorded costs described in this chapter are used to calculate the  
32          corresponding revenue requirement shown in Chapter 12.

1 Table 11-1 below shows, by chapter, the total costs presented in the  
2 accompanying testimony (Chapters 2 through 9), as well as the adjustments  
3 made to these recorded costs. After accounting adjustments, costs for which  
4 PG&E seeks recovery in this application are \$79.9 million in expenses and  
5 \$520.4 million in capital expenditures.

**TABLE 11-1  
TOTAL COSTS AND ADJUSTMENTS BY CHAPTER  
(WHOLE DOLLARS)**

Line No.	WMCE Chapter	Memo Accounts	Expense	Capital
1	Chapter 2: ED CEMA	CEMA	\$43,874,825	\$30,251,112
2		Less: E&Y recommendations (Non-Butte)	(139,100)	(169,281)
3		Subtotal	\$43,735,724	\$30,081,831
4	Chapter 3: Community Butte Rebuild	CEMA <sup>(a)</sup>	\$3,398,954	\$362,861,867
5		Less: E&Y recommendations (Butte Community Rebuild)	(1,319,125)	(1,404,699)
6		Subtotal	\$2,079,828	\$361,457,168
7	Chapter 4: Gas CEMA	CEMA	\$1,112,602	\$7,348,891
8		Less: E&Y recommendations (Non-Butte)	(48,612)	(10,010)
9		Less: Overheads and A&G	—	(158,386)
10		Subtotal	\$1,063,990	\$7,180,495
11	Chapter 5: Generation CEMA	CEMA	\$2,733,241	\$2,051,100
12		Less: E&Y recommendations (Non-Butte)	(8,275)	(2,402)
13		Subtotal	\$2,724,965	\$2,048,697
14	Chapter 6: GSRRMA	GSRRMA	\$3,581,961	\$3,982,602
15	Chapter 7: GSBA	GSBA	9,015,256	115,667,495
16	Chapter 8: CAVAMA	CAVAMA	1,062,678	—
17	Chapter 9: Other Misc. Memo Accounts	ECPMA	1,362,726	—
18		CPPMA	2,342,135	—
19		CPPMA Incremental Uncollectibles	4,435,816	—
20		DMA	5,717,080	—
21		PIPPMA	1,525,374	—
22		ML CDMMA	1,216,674	—
23		MGMA	110,621	—
24		Subtotal	\$16,710,426	—
25	Total Request		\$79,974,829	\$520,418,301

(a) The amounts of Community Butte Rebuild are the adjusted costs net of Order Instituting Investigation (OII) Disallowance, Insurance Proceeds, and AB 1054 Securitization.

1 **B. Ernst & Young’s Independent Audit Reports**

2 PG&E engaged EY to conduct an analysis of costs included in the CEMA  
3 account presented in the 2024 WMCE. The purpose of the analysis was to  
4 confirm that the costs included in this account, as captured in PG&E’s financial  
5 systems, were sufficiently supported, reasonable, and directly attributable to the  
6 designated account. EY delivered one report during the engagements that is  
7 attached as Appendix A, and summarized in this testimony.

8 **1. 2023 CEMA Costs – Non-Butte Community Rebuild**

9 As shown in Appendix A, EY reviewed 2023 costs recorded in the  
10 CEMA account. For purposes of the 2023 cost analysis, EY reviewed a  
11 population of \$81.6 million of 2023 CEMA costs by cost category as shown  
12 in Table 11-2 (line 8 “Amount” column).

13 In addition to established analytical procedures and transaction testing,  
14 EY also considered the incrementality of the CEMA costs compared to the  
15 last approved 2023 GRC and other mechanisms.

16 EY’s cost analysis identified certain cost items that they recommended  
17 be removed from PG&E’s application. PG&E accepted EY’s  
18 recommendations, and the amounts requested in this application have been  
19 reduced by the amount of \$0.4 million as shown in Table 11-3 (line 15  
20 “Extrapolated Total” column).

21 **a. Review Methodology and Observations for 2023 CEMA Costs –**  
22 **Non-Butte Community Rebuild**

23 EY segregated 2023 costs within the CEMA Account by cost  
24 category and performed analytics across each population. This allowed  
25 EY to develop testing procedures for each cost category based on its  
26 unique nature and risks. The combination of analytical procedures,  
27 statistical sampling, and transaction testing is designed to provide  
28 adequate coverage across all cost categories within the scope of this  
29 account. Approximately \$41.7 million of costs were tested, totaling  
30 51.1 percent of the population provided.

31 Table 11-2 below summarizes the costs within the CEMA Account  
32 provided by cost category for the 2024 EY Report:

**TABLE 11-2  
POPULATION OF CEMA ACCOUNT BY COST CATEGORY (NON-BUTTE)  
(WHOLE DOLLARS)**

Line No.	Cost Category	Population Amount	Selection Amount	Percentage Tested
1	Contracts & External Labor	\$55,050,645	\$38,645,553	70.2%
2	Internal Labor	18,628,245	18,625,245	100.0%
3	Helicopters	499,738	499,738	100.0%
4	Materials	4,700,104	626,994	13.3%
5	Employee Expense	962,981	246,523	25.6%
6	Overheads	427,939	427,939	100.0%
7	Other	1,285,836	1,285,836	100.0%
8	Total	\$81,555,488	\$60,357,828	74.0%

1                    In addition to the analytical procedures and transaction testing  
2                    described above, EY also considered the incrementality of CEMA costs  
3                    compared to the last approved GRC and other mechanisms.

4                    **b. Results of EY Review for 2023 CEMA Costs**

5                    Based on EY’s analysis, there was no evidence of systemic errors  
6                    or omissions that would raise questions relating to management’s  
7                    conclusions that: (1) the costs were incurred for the activities set forth in  
8                    the corresponding relevant California Public Utilities Commission  
9                    approved WMCE Accounts; (2) the costs were accurately recorded; and  
10                   (3) there is no evidence of costs recorded to more than one account.  
11                   Further, EY confirmed that any observations of possible deviations  
12                   within the cost data provided were not material to the overall costs  
13                   incurred.

14                   Table 11-3 lists EY’s observations of potential exclusions for each  
15                   cost category reviewed.

**TABLE 11-3  
OBSERVATIONS FOR POTENTIAL EXCLUSION (NON-BUTTE)  
(WHOLE DOLLARS)**

Line No.	Cost Category	Exclusion Type	Total Amount Excluded
1	Contract	Not CEMA-related	\$767
2	Contract	Not in CEMA Location	1,430
3	Contract	Not reasonable/prudent	39,819
4	Contract	Prohibited Items	13,425
5	Contract	Unsupported	48,599
6	Internal Labor	Not in CEMA Location	667
7	Internal Labor	Outside of storm/restoration period	2,698
8	Materials	Not CEMA-related	46,612
9	Materials	Not in CEMA Location	26,544
10	Employee Expense	Not reasonable/prudent	5,530
11	Overheads	Does Not Align to PG&E Overheads Guidance	61,666
12	Overheads	Not in CEMA Location	22
13	Other	Not CEMA-related	9,800
14	Total exclusions		\$257,579
15	Extrapolated Total		\$394,084

- 1                    1) Contract Costs: EY noted a few observations for contract costs
- 2                    detailed below:
- 3                    • Two instances where the activities/services billed did not appear
- 4                    CEMA-related;
- 5                    • One instance with insufficient location support to justify inclusion
- 6                    of costs in this filing;
- 7                    • Limited instances of vendors marking up subcontractor charges
- 8                    which were prohibited in the contract;
- 9                    • One instance of reimbursement for non-eligible purchases; and
- 10                  • Three instances of subcontractor costs not containing adequate
- 11                  support
- 12                  2) Internal Labor: EY noted eight instances with insufficient location
- 13                  support to justify inclusion of costs. EY also noted twenty-seven
- 14                  instances of internal labor charges that were incurred before the
- 15                  CEMA event start date.
- 16                  3) Helicopters: No observations were made in the category of
- 17                  helicopters.
- 18                  4) Materials: EY noted eight instances of common materials such as
- 19                  bolts and screws, should be excluded from CEMA, in accordance
- 20                  with CEMA A.18-12-009. EY also noted one instance with

1 insufficient location support where the materials were used for the  
2 CEMA event specified.

- 3 5) Employee Expenses: EY noted limited instances where  
4 transactions were for travel and meals without sufficient support.  
5 6) Overheads: EY noted limited instances where overheads charges  
6 with cost element descriptions resembling minor material overheads  
7 were not removed from the population in accordance with PG&E  
8 2020 Overhead Guidance.  
9 7) Other: EY noted limited instances of costs with the description  
10 “Wildfire Fund Expense” with insufficient support for justification.

11 As a result of the procedures described above, EY identified  
12 approximately \$0.3 million (extrapolated by EY to \$0.4 million), as  
13 shown in Table 11-3 line 14 and 15 respectively, that were not properly  
14 evidenced for inclusion in the 2023 CEMA costs based on the  
15 information available.

16 PG&E accepted EY’s recommendations; therefore, the amounts  
17 requested in this application have been reduced by the amount of  
18 \$0.4 million.

## 19 **2. Butte Community Rebuild Costs**

20 As shown in Appendix A, EY also reviewed the Butte Community  
21 Rebuild costs related to the 2018 Camp Fire. In addition to the analytical  
22 procedures and transaction testing, EY considered the incrementality of the  
23 Butte Community Rebuild costs compared to the 2023 GRC and other  
24 mechanisms.

25 EY’s cost analysis identified certain Butte Community Rebuild costs that  
26 they recommended to be removed from for PG&E’s application. PG&E has  
27 accepted EY’s recommendations and therefore reduced the Butte  
28 Community Rebuild costs requested in this application by the amount of  
29 \$2.7 million as shown in Table 11-4 (line 7 “Extrapolated Total” column).

### 30 **a. Review Methodology and Observations for Butte Community** 31 **Rebuild**

32 EY segregated the costs within Butte Community Rebuild by order  
33 number into “projects” and performed analytics across the population

and develop specific testing procedures. EY identified a sample of orders totaling \$329 million to test in more detail. The combination of analytical procedures, statistical sampling, and transaction testing is designed to provide adequate coverage across all the projects.

**b. Results of EY Review for Butte Community Rebuild Program Costs**

The following section describes EY’s observations for each category mention in Table 11-4 below:

**TABLE 11-4  
OBSERVATIONS FOR POTENTIAL EXCLUSION (BUTTE COMMUNITY REBUILD)  
(WHOLE DOLLARS)**

Line No.	Exclusion Type	Total Amount Excluded
1	Not Butte related	\$1,758
2	Not in Butte County	148,107
3	Outside of Butte rebuild/restoration period	1,347,783
4	Not reasonable/prudent	75,563
5	Unsupported	304,445
6	Total exclusions	<u>\$1,877,656</u>
7	Extrapolated Total	<u>\$2,737,212</u>

- 1) Non-Butte Related: EY noted four instances where costs did not appear related to Butte rebuild activities, such as, “Electric Standards and Governance” training, “Cost Validation Services”, “Electrical Ops Technical Project,” and “EO Resource Plan Data Modeling;”
- 2) Not in Butte County: EY noted seventy-eight instances where costs were incurred outside of Butte County;
- 3) Outside of Storm/Restoration Period: EY noted two hundred forty-five transactions charged prior to the start date of the 2018 Camp Fire;
- 4) Not Reasonable/Prudent: EY noted four instances of costs that did not appear reasonable or prudent. EY also noted limited instances of vendor charging amounts that are not prudent; and
- 5) Unsupported: EY noted two instances where the transaction had no supporting documentation.

1                   As a result of the procedures described above, items totaling  
2                   approximately \$1.9 million (extrapolated by EY to \$2.7 million), as  
3                   shown in Table 11-4 line 6 and 7 respectively, were not properly  
4                   evidenced for inclusion in Butte Community Rebuild.

5                   PG&E accepted EY's recommendations, therefore, the amounts  
6                   requested in the application have been reduced by the extrapolated  
7                   amount of \$2.7 million.

8   **C. CEMA Capitalized A&G**

9                   In accordance with D.08-01-021, PG&E is removing all capitalized A&G  
10                  costs charged to the CEMA capital orders. Accordingly, PG&E has removed  
11                  \$0.16 million in CEMA capitalized overheads.

12   **D. Conclusion**

13                  As shown in this chapter, PG&E has removed from its cost recovery request  
14                  appropriate adjustments relating to the recommendations from our external  
15                  auditor, CEMA capitalized A&G, Wildfire OII Decision, and insurance proceeds.  
16                  PG&E respectfully seeks reasonableness review and recovery of \$79.9 million in  
17                  expenses and \$520.4 million in capital expenditures for costs presented in this  
18                  application.

**PACIFIC GAS AND ELECTRIC COMPANY**  
**CHAPTER 12**  
**REVENUE REQUIREMENT**

PACIFIC GAS AND ELECTRIC COMPANY  
CHAPTER 12  
REVENUE REQUIREMENT

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1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **CHAPTER 12**  
3 **REVENUE REQUIREMENT**

4 **A. Introduction**

5 The purpose of this chapter is to present the updated revenue requirement  
6 associated with the incremental costs that are recorded in various balancing and  
7 memorandum accounts sought for recovery in this application and reflect the  
8 following updates in the Errata filing:

- 9 1) The \$4.5 million capital expenditures errata as presented in Chapter 11,  
10 which was submitted on October 3, 2025.  
11 2) Updated with the 2025 and 2026 adopted cost of capital as approved in  
12 2023 Cost of Capital Phase 2 AL 4996-G/7423-E and 2026 Cost of Capital  
13 Final Decision D.25-12-043.

14 The updated revenue requirement (excluding interest) is \$421.3 million as  
15 compared to the \$412.0 million as filed revenue requirement (excluding interest)  
16 and it is presented in Table 12-3 at the end of this chapter. The total revenue  
17 requirement variance is \$9.3 million, and it is mainly due to:

- 18 1) \$3.9 million of the revenue requirement variance covering from 2023  
19 through 2030 is due to \$4.5 million of capital expenditure errata as noted  
20 above.  
21 2) The remaining \$5.4 million revenue requirement variance is due to update to  
22 reflect authorized cost of capital, which is not an errata.

23 The balancing and memorandum accounts included in this application are  
24 listed as follows:

- 25 1) Catastrophic Event Memorandum Account (CEMA);  
26 2) Butte Community Rebuild CEMA;  
27 3) Gas Statutes Regulations and Rules Memorandum Account (GSRRMA)  
28 4) Climate Adaptation Vulnerability Assessment Memorandum Account  
29 (CAVAMA);  
30 5) COVID-19 Pandemic Protections Memorandum Account (CPPMA);  
31 6) Disconnections Memorandum Account (DMA);  
32 7) Percentage of Income Payment Plan Memorandum Account (PIPPMA);  
33 8) Emergency Consumer Protections Memorandum Account (ECPMA);

- 1 9) Medium-Large Commercial and Industrial COVID-19 Disconnection
- 2 Moratorium Memorandum Account (ML-CDMMA);
- 3 10) CPPMA Incremental Uncollectibles; and
- 4 11) Microgrids OIR Memorandum Account (MGMA).

5 Pacific Gas and Electric Company (PG&E) calculates the revenue  
6 requirement using the Results of Operations (RO) model. The RO model  
7 compiles all capital costs and operating expenses to estimate the revenue that  
8 PG&E needs to recover for work presented in this application. The revenue  
9 requirement for these costs is described below in Section B and set forth in the  
10 tables at the end of this chapter. The revenue requirement for the final cost  
11 recovery approved by the California Public Utilities Commission (CPUC or  
12 Commission) will be calculated using the same RO assumptions presented here,  
13 updated as appropriate for interest expense, Revenue Fees and Uncollectibles  
14 (RF&U), authorized Cost of Capital (COC), and tax parameters.<sup>1</sup>

15 **B. Summary of Request**

16 In this application, PG&E seeks recovery of \$421.3 million in total updated  
17 revenue requirement (excluding interest and RF&U) for the period of 2018  
18 through 2030. Table 12-1 below presents the updated revenue requirement by  
19 balancing account and memorandum account and Table 12-4 at the end of this  
20 chapter presents revenue requirement by Electric Distribution, Gas Distribution ,  
21 Electric Generation (EG), and Gas Transmission and Storage (GT&S).

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<sup>1</sup> D.23-11-069.

**TABLE 12-1  
2024 WILDFIRE MITIGATION AND CATASTROPHIC EVENTS (WMCE)  
REVENUE REQUIREMENT SUMMARY  
(THOUSANDS OF DOLLARS)**

Line No.	Memorandum Account	Expense Revenue Requirement	Capital Revenue Requirement	Total Revenue Requirement
1	CEMA Events	\$47,524	\$25,631	\$73,155
2	Butte Community Rebuild CEMA	2,089	320,468	322,557
3	GSRRMA	3,582	4,380	7,962
5	CAVAMA	961	-	961
6	CPPMA	2,342	-	2,342
7	DMA	5,714	-	5,714
8	PIPPMA	1,525	-	1,525
9	ECPMA	1,363	-	1,363
10	ML-CDMMA	1,217	-	1,217
11	CPPMA Incremental Uncollectibles	4,436	-	4,436
12	MGMA	111	-	111
13	GSBA <sup>(a)</sup>	-	-	-
14	Subtotal without interest	\$70,864	\$350,479	\$421,343
15	Interest (2018-2027)	13,244	9,654	22,898
16	Total (including Interest)	\$84,108	\$360,132	\$444,241

(a) GSBA is a two-way balancing account with an authorized revenue requirement in the 2023 General Rate Case (GRC). These costs are presented in Chapter 7 for reasonableness review. There are no revenue requirement request for GSBA in this application and the Revenue Requirement will be trued-up at the end of the 2023 GRC Cycle.

1           The CEMA Events total revenue requirement of \$73.1 million is associated  
2           with \$47.5 million of expense and \$39.3 million in capital expenditures in  
3           response to certain CEMA Events incurred in 2017 to 2023, as presented from  
4           Chapter 2, 4 and 5. As discussed in Chapter 11, the costs underlying the CEMA  
5           revenue requirement have been adjusted, in compliance with Public Utilities  
6           Code Section 454.9, Resolution (Res.) E-3238 (July 24, 1991), and Decision  
7           (D.) 23-11-069, to reflect only those costs not otherwise recovered through rates  
8           and incurred in counties that received a disaster declaration by a competent  
9           state or federal authority.

10           The Butte Community Rebuild CEMA total revenue requirement of  
11           \$322.6 million is associated with \$2.1 million of expense cost and \$361.5 million  
12           in capital expenditures in response to costs incurred for the PG&E's Community  
13           Rebuild Program. The Butte Community Rebuild Program refers to our  
14           commitment to underground electric infrastructure in and around the Town of  
15           Paradise to mitigate wildfire risk. A portion of the work also involves replacing

1 gas infrastructure. Chapter 3 discusses the Butte Community Rebuild Program  
2 in further detail. In the final stages of preparation of this case, PG&E has  
3 identified \$9 thousands costs should be removed from the Chapter 3 and 11  
4 cost tables and should not seek recovery in this Application. PG&E will update  
5 the revenue requirement calculations to remove these minor costs in future  
6 errata or supplemental filings. Furthermore, any future errors and adjustments  
7 that are discovered through the litigation of the case will be also included in the  
8 revenue requirement update, as appropriate.

9 The GSRRMA revenue requirement of \$8 million is associated with  
10 \$3.5 million of expense cost and \$4.4 million of capital expenditures incurred in  
11 year 2023, as presented in Chapter 6.

12 The GSBA is a two-way balancing account that tracks the revenues it  
13 receives based on approved rates, as well as the actual expenditures it incurs.  
14 Costs recorded are subject to reasonableness review in Chapter 7, however  
15 there is no revenue requirement request in this application and the Revenue  
16 Requirement will be trued-up at the end of the 2023 GRC Cycle.

17 The CAVAMA revenue requirement of \$1 million is associated with  
18 \$1 million of expense cost in year 2023, as presented in Chapter 8.

19 The other revenue requirement of \$16.7 million is associated with  
20 \$2.3 million of expenses recorded to the CPPMA, \$4.4 million of expenses  
21 recorded to the CPPMA Incremental Uncollectibles, \$5.7 million of expenses  
22 recorded to the DMA, \$1.5 million of expenses recorded in the PIPPMA,  
23 \$1.4 million of expenses recorded in the ECPMA, \$1.2 million of expenses  
24 recorded in the ML-CDMMA, and \$0.1 of expenses recorded in the MGMA, as  
25 discussed in Chapter 9.

26 Table 12-4 at the end of this chapter presents the revenue requirements by  
27 balancing and memorandum accounts by functional area. The revenue  
28 requirement amount in this application excludes RF&U. When this application is  
29 approved by the CPUC, PG&E will update the revenue requirement to include  
30 RF&U in accordance with the Commission approved preliminary statement  
31 discussed in Section D in this chapter.

32 PG&E proposes to record the appropriate revenue requirement presented in  
33 this application into the Electric Distribution Revenue Adjustment Mechanism  
34 (DRAM), Portfolio Allocation Balancing Account (PABA), Energy Recovery

1 Resource Account (ERRA), and New System Generation Balancing Account  
2 (NSGBA), Gas Core Cost Subaccount of the Core Fixed Cost Account (CFCA),  
3 Noncore Subaccount of the Noncore Customer Class Charge Account (NCA).

#### 4 **C. Elements of the Results of Operations Calculation**

5 Costs included in this application are based on the recorded amounts for  
6 Catastrophic Events and other memorandum accounts summarized in  
7 Chapter 1. Chapters 2 through 9 testimony and workpapers provide detailed  
8 description of these costs.

##### 9 **1. Expense**

10 In this application, PG&E seeks to recover a total expense revenue  
11 requirement of \$70.9 million excluding interest. This amount is associated  
12 with the relevant expense of \$47.5 million recorded in the CEMA for certain  
13 CEMA events included in this application, \$2.1 million recorded in the Butte  
14 Community Rebuild, \$1 million recorded in the CAVAMA, \$3.6 million  
15 recorded in GSRRMA, \$2.3 million recorded in the CPPMA, \$4.4 million  
16 recorded in CPPMA Incremental Uncollectibles, \$5.7 million recorded in the  
17 DMA, \$1.4 million recorded in the ECPMA, \$1.2 million recorded in  
18 ML-CDMMA, \$1.5 million recorded in PIPPPMA, and \$0.1 million recorded  
19 in the MGMA.

20 The expense -related revenue requirement is presented by year in  
21 Table 12-5 at the end of this chapter.

##### 22 **2. Capital-Related Inputs**

23 In this application, PG&E seeks to recover a total capital revenue  
24 requirement of \$350.5 million excluding interest. This capital-related  
25 revenue requirement is presented in Tables 12-1 and 12-4. The total capital  
26 revenue amount is associated with the capital expenditures of \$39.3 million  
27 recorded in the CEMA for certain CEMA events, \$361.5 million recorded in  
28 the Butte Community Rebuild, and \$4.4 million recorded in the GSRRMA in  
29 this application.

30 Table 12-6 at the end of this chapter presents the capital revenue  
31 requirement by year by functional area.

1           The capital revenue requirement is calculated based on the actual  
2 capital additions and cost of removal associated with the capital  
3 expenditures included in this application.

4           **a. Capital Expenditures**

5           Capital expenditures are incurred when PG&E spends funds on  
6 capital projects that are necessary to replace, augment or support its  
7 existing utility plant. This application includes \$39.3 million capital  
8 expenditures driven by residual 2022 and 2023 Winter Storm costs as  
9 well as various other CEMA Events. The \$361.5 million capital  
10 expenditures were incurred and recorded in the Butte Community  
11 Rebuild Events. These expenditures were incurred to restore and  
12 rebuild loss of property and other damages to existing utility plant. This  
13 application also includes \$4 million capital expenditures incurred in 2023  
14 for GSRRMA.

15           PG&E has adjusted the recorded capital expenditures in this filing to  
16 exclude capitalized administrative and general (A&G) costs and  
17 incorporated with the costs reduction related to Ernst & Young's (EY)  
18 recommendations. For capital expenditures incurred related to the Butte  
19 Community Rebuild Program is further adjusted with other adjustments  
20 including: (1) disallowance adopted in the Wildfire Order Instituting  
21 Investigation (OII), (2) insurance proceeds, and (3) AB1054  
22 Securitization. The accounting adjustments for the Butte Community  
23 Rebuild Program are discussed in detail in Chapter 3, Section E and in  
24 Chapter 11.

25           **b. Capital Additions**

26           As capital work happens, the costs are accumulated and recorded  
27 to Construction Work in Progress (CWIP) until the project is operational  
28 and providing utility service. While in CWIP, projects that last over  
29 30 days accrue an Allowance for Funds Used During Construction  
30 (AFUDC). Projects that last less than 30 days do not accrue AFUDC  
31 and are treated as "operative as installed." When a specific capital  
32 project becomes operational, the CWIP balance is transferred to the  
33 plant -in -service, and the capital expenditures and associated AFUDC

1 become part of capital additions. Once a project is transferred to the  
2 plant -in -service, it is included in the rate base and a revenue  
3 requirement is calculated. Capital additions, for the costs that are  
4 included in this application, are based on the capital expenditures  
5 recorded in PG&E's SAP financial system at the work order level.

6 **c. Cost of Removal**

7 The portion of capital expenditures associated with the removal of  
8 existing assets known as removal cost is part of Accumulated  
9 Depreciation (AD), which decreases the amount of AD in rate base. The  
10 actual removal cost associated with the capital expenditures for CEMA  
11 and Butte Community Rebuild Program is \$25.3 million.

12 **3. Capital Revenue Requirement Components**

13 Commission Res.E-3238 provides that "in addition to direct expenses,  
14 utilities could also book -capital-related costs such as depreciation and  
15 return on -capital-related revenue requirement includes depreciation  
16 expense, a return on rate base, related federal and state income taxes, and  
17 property taxes. The various -capital-related components of the RO  
18 calculation are discussed below.

19 **a. Depreciation**

20 Depreciation is included in the revenue requirement calculation as  
21 both depreciation expense and AD. Depreciation expense is calculated  
22 using CPUC approved rates in accordance with D.23-11-069 (2023  
23 GRC Decision). Depreciation expense is calculated by multiplying the  
24 end of month plant in service for each functional group of assets by the  
25 corresponding composite book depreciation rates.

26 In this application, to calculate the capital revenue requirement from  
27 2023-2030, PG&E has used the 2023 GRC adopted composite  
28 depreciation rates at the functional group level for Electric Distribution,  
29 Gas Distribution, EG, GT&S, and Common Plant assets. The composite  
30 depreciation rates are calculated by weighting the depreciation rates  
31 authorized for each asset class in D.23-11-069 with the corresponding  
32 recorded plant balance at the asset class level.

1 To calculate the capital revenue requirement from 2020-2022,  
2 PG&E has used the 2020 GRC<sup>2</sup> adopted composite depreciation rates  
3 at the functional group level for Electric Distribution and Gas  
4 Distribution.

5 To calculate the capital revenue requirement for 2019, PG&E has  
6 used the 2017 GRC<sup>3</sup> adopted composite depreciation rates at the  
7 functional group level for Electric Distribution and Gas Distribution.

8 **b. Rate of Return on Rate Base**

9 Rate base is calculated using utility plant less adjustments for  
10 deferred taxes, depreciation reserve, and other rate base offsets. Utility  
11 plant consists of the original cost of investment in plant and equipment  
12 that is used and useful in rendering or restoring utility services. In  
13 developing the rate base associated with that plant for the purposes of  
14 this filing, certain deductions are made. A reduction is made for the  
15 accumulated deferred income taxes associated with these assets.  
16 These deferred income taxes primarily result from following the Modified  
17 Accelerated Cost Recovery System (MACRS) tax depreciation method  
18 and casualty loss deductions for Federal Income Tax (FIT) purposes.  
19 Rate base is reduced by the amount of depreciation reserve (i.e., the AD  
20 already taken in prior years).

21 PG&E multiplies the currently adopted composite Rate of Return  
22 (ROR) by the weighted average rate base for each year to calculate the  
23 Net for Return. This calculation uses the ROR and capital structure  
24 adopted in the following authorized COC decisions. PG&E will update  
25 the return on rate base to the authorized ROR if the Commission adopts  
26 a new ROR in future PG&E Tier 2 Advice Letter (AL) Filing, future COC  
27 proceeding, or other Commission docket.

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2 D.20-12-005.

3 D.17-05-013.

**TABLE 12-2  
COC SUMMARY**

Line No.	Year	Weighted Avg. Cost of Capital	Cost of Common Equity	Cost of Debt	CPUC of Capital Decision Reference
1	2019	7.69%	10.25%	4.89%	D.17-07-005
2	2020	7.57%	10.25%	5.16%	D.19-12-056
3	2021	7.34%	10.25%	4.17%	D.19-12-056 Plus Cost of Debt Update
4	2022	7.34%	10.25%	4.17%	D.19-12-056 Plus Cost of Debt Update
5	2023	7.28%	10.00%	4.31%	D.23-01-002
6	2024	7.80%	10.70%	4.66%	AL 4813G/7046-E3
7	2025	7.66%	10.28%	4.80%	AL 4996-G/7423-E
8	2026 and beyond	7.61%	9.98%	5.05%	D.25-12-043

**c. Income Taxes**

This section describes the calculation of FIT and the associated deferred taxes and California Corporation Franchise Taxes (CCFT or state income tax) expenses.

PG&E estimates current FIT and CCFT on net operating income before income taxes. PG&E follows MACRS and Asset Depreciation Range<sup>4</sup> guidelines for classifying capital additions and calculating federal and state tax depreciation. Current FIT expense is the product of the currently effective corporate income tax rate (21 percent) and the federal taxable income. Likewise, current state income tax expense is the product of the statutory rate (8.84 percent) and the state taxable income. Both MACRS and federal casualty loss tax deductions are computed on a normalized basis. This allows PG&E to recognize the timing differences between the book and these federal tax deductions. This difference multiplied by the federal tax rate is called deferred FITs and is included as an adjustment to current federal tax expense and a credit to rate base. State income taxes are calculated using flow-through treatment. With a flow-through treatment, customers receive an immediate benefit from the use of accelerated state tax deductions, there are no deferred state taxes and therefore no associated deduction to rate base.

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<sup>4</sup> Uses Sum of Years Digits method.

1           The CEMA and Butte Community Rebuild capital expenditures  
2 included in this filing were incurred to restore and rebuild loss of  
3 property and remediate other damages to existing utility plant. Certain  
4 capital costs qualify for casualty loss tax treatment. Internal Revenue  
5 Code Section 165(a) allows a deduction for any loss sustained during  
6 the taxable year that is not compensated for by insurance or otherwise.  
7 In accordance with Revenue Ruling 87-117 and Chief Counsel  
8 Advice 201145011, the potential recovery of storm and fire costs  
9 requested in a filing with the CPUC is not considered compensation for  
10 the casualty loss under Section 165(a) (however any potential recovery  
11 will be included in gross income in the future if and when received).  
12 Treas. Reg. Section 1.165-1(b) provides that to be allowable as a  
13 deduction under Section 165(a), a loss must be evidenced by closed  
14 and completed transactions, fixed by identifiable events, and related to  
15 disaster losses actually sustained during the taxable year. The amount  
16 of loss to be taken into account for purposes of Section 165(a) shall be  
17 the lesser of either:

- 18 i) The amount which is equal to the fair market value of the property  
19 immediately before the casualty reduced by the fair market value of  
20 the property immediately after the casualty; or
- 21 ii) The amount of the adjusted basis prescribed in Treas. Reg.  
22 Section 1.1011-1 for determining the loss from the sale or other  
23 disposition of the property involved.

24           Under Treas. Reg. Section 1.165-7(a)(2)(ii), the cost of repairs (both  
25 capital and expense) to the property damaged is acceptable as  
26 evidence of the loss of value. However, Treas. Reg.  
27 Section 1.263(a)-(3)(k)(1)(iii), requires the taxpayer to capitalize the  
28 expense component resulting in net tax deduction of the capital  
29 restoration costs. Since these Catastrophic Event costs are capitalized  
30 for book purposes and deducted for tax purposes, a book to tax  
31 adjustment is created. As described above, in this filing, federal book to  
32 tax adjustments for depreciation and casualty loss deduction are  
33 computed on a normalized basis, while state book to tax differences is  
34 calculated on a flow-through basis.

1 Cost capitalized for book purposes that do not qualify for tax  
2 casualty loss deductions may qualify for the tax repair deduction.  
3 Federal and California tax repair deductions are treated on a  
4 flow-through basis. PG&E applies Treasury Regulations under  
5 Sections 162 and 263(a) to deduct costs attributable to repairs and  
6 maintenance of gas transmission and distribution lines. PG&E applies  
7 Internal Revenue Service (IRS) Revenue Procedures 2011-43 and  
8 2013-24 to deduct costs attributable to repairs and maintenance of  
9 electric distribution circuits and EG plants. The IRS guidance allows a  
10 more expansive “unit of property” definition for tax purposes than for  
11 financial reporting purposes. This allows PG&E to treat certain  
12 expenditures as a current repair expense. For financial reporting  
13 purposes, these expenditures are capitalized and depreciated. Thus, a  
14 tax and book basis timing difference is created. Due to the large tax  
15 repair flow through deductions, sometimes the income tax component of  
16 the capital-related revenue requirements can be negative for certain  
17 years.

#### 18 **d. Property Taxes**

19 Property tax calculations are determined by multiplying the taxable  
20 Plant Less Depreciation Reserve (Net Plant) by an eight-year average  
21 property tax factor from 2023 through 2030 for the CEMA events, Butte  
22 Community Rebuild program, and GSRRMA. The property tax factor is  
23 comprised of the adjusted base year market-to-cost ratio multiplied by  
24 the composite tax rate. The adjusted market-to-cost ratio is the  
25 relationship between the most current assessment (adjusted) and the  
26 taxable Net Plant.

#### 27 **D. Common Cost Allocation**

28 Certain CEMA, DMA and CAVAMA expense costs presented in their  
29 respective chapters relate to A&G costs shared among all PG&E functional  
30 areas. The GSRRMA capital is settled to Common Plant that used and useful  
31 for all of PG&E’s functional areas. Similar to PG&E’s practice in its GRC, these  
32 A&G and Common Capital costs are allocated to different functional areas  
33 (Electric Distribution, Gas Distribution, EG, GT&S, and Electric Transmission

1 (ET)) using the 2023 recorded Operations and Maintenance (O&M) labor  
2 allocation factors. The revenue requirement presented in this chapter includes  
3 Electric Distribution, Gas Distribution, EG, GT&S which are under the CPUC  
4 jurisdiction. The A&G costs allocated to ET which is under the Federal Energy  
5 Regulatory Commission jurisdiction are excluded from this application.

## 6 **E. Cost Recovery**

7 PG&E proposes to recover a total revenue requirement of \$421.3 million  
8 (excluding interest and RF&U) associated with the Catastrophic Events and  
9 other memorandum accounts costs presented in Chapter 1.

10 In this application, PG&E seeks recovery of the revenue requirement related  
11 to the Electric and Gas CEMA from January 1, 2020 through December 31,  
12 2030 and the revenue requirement related to GSRRMA from January 1, 2023  
13 through December 31, 2030, as PG&E did not include any of the CEMA and  
14 GSRRMA costs and request the associated revenue requirement in its 2020  
15 GRC, 2019 GT&S Rate Case, or 2023 GRC.

16 PG&E also seeks recovery of the revenue requirement related to the Butte  
17 Community Rebuild Program from January 1, 2018 through December 31, 2030.  
18 The Butte Community Rebuild Program costs include both capital expenditure  
19 and O&M expenses that PG&E seeks recovery in this Application, net of the  
20 following four adjustments:

- 21 a) Cost Disallowance Under the Wildfire OII Decision;
- 22 b) Assembly Bill 1054 Securitization;
- 23 c) EY's Independent Audit Reports; and
- 24 d) Insurance Proceeds.

25 Chapter 3 and Chapter 11 contain additional details on the adjustments  
26 listed above.

27 As it pertains to ratemaking, the adjustments necessitate the following  
28 conventions:

- 29 • For Electric Distribution Butte Community Rebuild capital costs under Major  
30 Work Category (MWC) 95 and 08, after the adjustments mentioned above,  
31 there are no capital revenue requirements from 2018 to 2022. PG&E seeks  
32 capital revenue requirement from 2023 through 2030 associated with the  
33 remaining net capital costs incurred in 2023;

- 1 • For Gas Distribution Butte Community Rebuild capital costs under MWC 14  
2 and 50, the 2018 through 2023 cost are not subject to any of the  
3 adjustments except EY's Independent Audit Reports. The 2018 through  
4 2022 capital revenue requirement associated with the MWC 14 and  
5 50 capital costs were recovered under the 2017 GRC and 2020 GRC case.  
6 Per the 2023 GRC, D.23-11-069 final decision, the Commission adopted  
7 zero funding for the Butte Community Rebuild Program and directed PG&E  
8 to completely remove all Butte Community Rebuild Program recorded and  
9 forecast costs (including MWC 14 and 50) from the final decision RO Model  
10 and recover these costs in the separate application. PG&E seeks capital  
11 revenue requirement from January 1, 2023 through December 31, 2030  
12 associated with these Gas capital costs under MWC 14 and 50;
- 13 • For Gas Distribution Butte Community Rebuild Program capital costs under  
14 MWC 3Q, after the adjustments mentioned above, there are no capital  
15 revenue requirements from 2018 to 2022. PG&E seeks capital revenue  
16 requirement from 2023 through 2030 associated with the remaining net  
17 capital costs incurred in 2023; and
- 18 • For Customer Care Butte Community Rebuild Program capital costs under  
19 MWC 3M, 2019-2023 capital costs are not subject to any of the adjustments  
20 that mentioned above, PG&E seeks capital revenue requirement from 2019  
21 through 2030.

22 Consistent with our past practice, PG&E proposes to roll the recorded  
23 capital additions and plant associated with the capital expenditures presented in  
24 this application into the 2031 GRC rate base.

25 The revenue requirement calculation in this filing excludes RF&U. Upon the  
26 CPUC approval of the cost recovery in this application, the revenue requirement  
27 associated with the approved costs in this filing will be posted monthly into the  
28 specific memorandum amounts and will include interest and RF&U.

29 PG&E proposes to recover all approved 2024 WMCE expenditures through  
30 the DRAM, PABA, ERRA, NSGBA, CFCA, and NCA rate mechanisms on  
31 September 1, 2026, or the next available rate change after the effective date of  
32 the decision in this proceeding, and through the Annual Electric True-Up (AET)  
33 and Annual Gas True-Up (AGT) thereafter. Rates set to recover costs in this  
34 application will be determined in the same manner as rates set to recover other

1 Electric Distribution, EG, Gas Distribution, and GT&S costs, using adopted  
2 methodologies for revenue allocation and rate design.<sup>5</sup> The change in rates for  
3 approved recovery of recorded costs included in this application will affect total  
4 charges for bundled service customers and for customers who purchase energy  
5 from other suppliers (i.e., direct access and community choice aggregation  
6 customers).

7 PG&E's final cost recovery will include the interest expense based on the  
8 applicable interest rates, timing of the decision and the approved cost recovery.  
9 In this application, PG&E is still presenting the as filed interest accrual  
10 (2018-2027) from the original application. Once the Commission approves cost  
11 recovery, PG&E will recalculate interest associated with the authorized revenue  
12 requirement based on the latest available interest rates, consistent with prior  
13 Commission approved preliminary statements, which state:

14 Interest rate on three-month Commercial Paper for the previous month, as  
15 reported in the Federal Reserve Statistical Release, G.13, or its successor.<sup>6</sup>

## 16 **F. Conclusion**

17 PG&E respectfully requests that the Commission adopt a total updated  
18 revenue requirement of \$421.3 million (excluding interest and RF&U). The  
19 revenue requirement set forth in this filing is calculated using the RO model for  
20 separately funded rate case applications and is based on the recorded costs  
21 presented and included in other testimony submitted in this filing. The detailed  
22 revenue requirement calculation is provided in the workpapers supporting this  
23 chapter.

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5 The current electric revenue allocation and rate design methods were approved by D.21-11-016 in the PG&E's 2020 GRC Phase II Decision.

6 Electric Preliminary Statement Part G, CEMA, [https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC\\_PRELIM\\_G.pdf](https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_PRELIM_G.pdf); Gas Preliminary Statement Part AC, CEMA: [https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS\\_PRELIM\\_AC.pdf](https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS_PRELIM_AC.pdf) (as of Nov. 21, 2022).

**TABLE 12-3  
REVENUE REQUIREMENT ADJUSTMENTS UPDATED – SUMMATION OF ALL YEARS (2018-2030)  
(THOUSANDS OF DOLLARS)**

Line No.	Memorandum Account	2024 WMCE Revenue Requirement as Filed in the Application			2024 WMCE Errata 2 Adjustments				2024 WMCE Revenue Requirement with Adjustments		
		Expense Requirement	Capital Requirement	Total Revenue Requirement	Expense Adjustments	Errata 2 Capital RRQ	Cost of Capital Adjustments	Total Adjustments	Expense Requirement	Capital Requirement	Total Revenue Requirement
1	Catastrophic Event Memorandum Account (CEMA)	47,524	21,277	68,802		3,934	420	4,354	47,524	25,631	73,155
2	Butte Community Rebuild (CEMA)	2,089	315,549	317,638			4,920	4,920	2,089	320,468	322,557
3	Climate Adaptation Vulnerability Assessment Memorandum Account (CAVAMA)	961	-	961				-	961	-	961
4	COVID-19 Pandemic Protections Memo Account (CPPMA)	2,342	-	2,342				-	2,342	-	2,342
5	CPPMA Incremental Uncollectibles	4,436	-	4,436				-	4,436	-	4,436
6	Disconnection Memo Account (DMA)	5,714	-	5,714				-	5,714	-	5,714
7	Gas Statutes Regulations and Rules Memorandum Account	3,582	4,368	7,950			12	12	3,582	4,380	7,962
8	Emergency Consumer Protections MA (ECPMA)	1,363	-	1,363				-	1,363	-	1,363
9	Medium-Large Commercial and Industrial COVID-19 Disconnection Moratorium Memo Acct. (ML-CDMMA-E)	1,217	-	1,217				-	1,217	-	1,217
10	Microgrids Memorandum Account (MGMA)	111	-	111				-	111	-	111
11	Percentage of Income Payment Plan Memorandum Account (PIPPMA)	1,525	-	1,525				-	1,525	-	1,525
12	Gas Storage Balancing Account (GSBA) (a)										
13	Subtotal - Recorded without Interest	70,864	341,194	412,058	-	3,934	5,351	9,285	70,864	350,479	421,343
14	<b>Interest (2018-2027)</b>	13,244	9,654	22,898	-	-	-	-	13,244	9,654	22,898
15	<b>Total RRQ (including Interest)</b>	<b>84,108</b>	<b>350,848</b>	<b>434,956</b>	<b>-</b>	<b>3,934</b>	<b>5,351</b>	<b>9,285</b>	<b>84,108</b>	<b>360,132</b>	<b>444,241</b>
				<i>434,956</i>		Note d	Note b & c				

Note a: GSBA is a two-way balancing account with an authorized revenue requirement in the 2023 GRC. There costs are presented in Chapter 7 for reasonableness review. There are no revenue requirement request for GSBA in this application and the Revenue Requirement will be trued-up at the end of the 2023 GRC Cycle.

Note b: For Test Year 2025, the Cost of Debt has been adjusted from 4.66% to 4.8%, and the weighted average cost of capital has been updated from 7.59% to 7.66% (Decision: AL 4996-G/7423-G).

Note c: For Test Years 2026-2030, the Cost of Debt has been adjusted from 4.66% to 4.8%, Cost of Common Equity from 10% to 9.98%, and the weighted average cost of capital has been updated from 7.59% to 7.61% (Decision: 25-12-043).

Note d: CEMA (Non-Butte Community Rebuild) capital expenditure increases by \$4.5M (From \$35.1M to \$39.3M).

Note e: Interest calculation is same as application. Upon the CPUC approval of the cost recovery, PG&E will accrue interest associated with authorized revenue requirement based on the latest available interest rates, consistent with the Commission-approved preliminary statement.

**TABLE 12-4  
REVENUE REQUIREMENT – SUMMATION OF ALL YEARS (2018-2030)  
(THOUSANDS OF DOLLARS)**

Line No.	Account	Electric Distribution			Electric Generation			Gas Distribution			Gas Transmission			Total Functional Areas		
		(2018-2030)			(2023-2030)			(2018-2030)			(2023-2030)			(2018-2030)		
		Expense	Capital	Total	Expense	Capital	Total	Expense	Capital	Total	Expense	Capital	Total	Expense	Capital	Total
1	Catastrophic Event Memorandum Account (CEMA)	43,733	18,330	62,063	2,726	1,470	4,196	402	570	972	665	5,260	5,925	47,524	25,631	73,155
2	Butte Community Rebuild (CEMA)	13,627	180,923	194,550	-	-	-	(11,611)	139,545	127,934	74	-	74	2,089	320,468	322,557
3	Climate Adaptation Vulnerability Assessment Memorandum Account (CAVAMA)	463	-	463	244	-	244	178	-	178	76	-	76	961	-	961
4	COVID-19 Pandemic Protections Memo Account (CPPMA)	1,288	-	1,288	-	-	-	1,054	-	1,054	-	-	-	2,342	-	2,342
5	CPPMA Incremental Uncollectibles	3,775	-	3,775	-	-	-	661	-	661	-	-	-	4,436	-	4,436
6	Disconnection Memo Account (DMA)	3,140	-	3,140	7	-	7	2,566	-	2,566	2	-	2	5,714	-	5,714
7	Gas Statutes Regulations and Rules Memorandum Account (GSRRMA)	-	2,112	2,112	-	1,112	1,112	-	812	812	3,582	345	3,927	3,582	4,380	7,962
8	Emergency Consumer Protections MA (ECPMA)	749	-	749	-	-	-	613	-	613	-	-	-	1,363	-	1,363
9	Medium-Large Commercial and Industrial COVID-19 Disconnection Moratorium Memo Acct. (ML-CDMMA-E)	1,155	-	1,155	-	-	-	61	-	61	-	-	-	1,217	-	1,217
10	Microgrids Memorandum Account (MGMA)	47	-	47	64	-	64	-	-	-	-	-	-	111	-	111
11	Percentage of Income Payment Plan Memorandum Account (PIPPMA)	839	-	839	-	-	-	686	-	686	-	-	-	1,525	-	1,525
12	Gas Storage Balancing Account (GSBA) (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Subtotal - Recorded without Interest	68,816	201,365	270,181	3,040	2,582	5,622	(5,390)	140,927	135,537	4,398	5,605	10,003	70,864	350,479	421,343
14	<b>Interest (2018-2027)</b>	12,152	4,410	16,562	959	46	1,005	(1,164)	5,155	3,991	1,298	43	1,341	13,244	9,654	22,898
15	<b>Total RRQ (including Interest)</b>	<b>80,968</b>	<b>205,775</b>	<b>286,743</b>	<b>3,999</b>	<b>2,628</b>	<b>6,626</b>	<b>(6,554)</b>	<b>146,082</b>	<b>139,528</b>	<b>5,695</b>	<b>5,648</b>	<b>11,344</b>	<b>84,108</b>	<b>360,132</b>	<b>444,241</b>

Note (1): Gas Storage Balancing Account is a two way balancing account with an authorized revenue requirement in the 2023 GRC. Cost recorded in the GSBA are subject to reasonableness review. There is no request for revenue requirement in this application.

**TABLE 12-5**  
**EXPENSE REVENUE REQUIREMENT – SUMMARY BY YEAR (2018-2030)**  
**(THOUSANDS OF DOLLARS)**

Line No.	Annual RRQ and Interest	Electric Distribution Expense RRQ	Electric Generation Expense RRQ	Gas Distribution Expense RRQ	Gas Transmission Expense RRQ	Total Functional Area Expense RRQ
1	2018	(13)	-	(60)	59	(14)
2	2019	(1,307)	-	1,279	14	(14)
3	2020	20,321	-	4,810	-	25,131
4	2021	17,175	-	4,841	-	22,016
5	2022	(20,974)	-	(8,677)	-	(29,651)
6	2023	53,614	3,040	(7,583)	4,324	53,395
7	Interest (2018-2026)	12,152	959	(1,164)	1,298	13,244
8	<b>Total</b>	<b>80,968</b>	<b>3,999</b>	<b>(6,554)</b>	<b>5,695</b>	<b>84,108</b>

**TABLE 12-6**  
**CAPITAL REVENUE REQUIREMENT – SUMMARY BY YEAR (2018-2030)**  
**(THOUSANDS OF DOLLARS)**

Line No.	Annual RRQ and Interest	Electric Distribution Capital RRQ	Electric Generation Capital RRQ	Gas Distribution Capital RRQ	Gas Transmission Capital RRQ	Total Functional Area Capital RRQ
1	2019	2	-	(12)	-	(10)
2	2020	5	-	5	-	9
3	2021	52	-	16	-	68
4	2022	87	-	15	-	102
5	2023	(1,987)	(336)	8,500	237	6,414
6	2024	25,339	559	20,898	849	47,645
7	2025	28,202	505	19,678	810	49,195
8	2026	28,570	499	18,368	815	48,252
9	2027	31,792	480	19,216	792	52,279
10	2028	30,669	319	18,560	725	50,273
11	2029	29,794	281	18,079	698	48,852
12	2030	28,840	275	17,605	680	47,400
13	Interest (2021-2027)	4,410	46	5,155	43	9,654
14	<b>Total</b>	<b>205,775</b>	<b>2,628</b>	<b>146,082</b>	<b>5,648</b>	<b>360,132</b>

**TABLE 12-7**  
**TOTAL REVENUE REQUIREMENT – SUMMARY BY YEAR (2018-2030)**  
**(THOUSANDS OF DOLLARS)**

Line No.	Annual RRQ and Interest	Electric Distribution RRQ	Electric Generation RRQ	Gas Distribution RRQ	Gas Transmission RRQ	Total Functional Area RRQ
1	2018	(13)	-	(60)	59	(14)
2	2019	(1,305)	-	1,267	14	(24)
3	2020	20,326	-	4,815	-	25,141
4	2021	17,227	-	4,857	-	22,084
5	2022	(20,888)	-	(8,662)	-	(29,549)
6	2023	51,628	2,704	916	4,561	59,809
7	2024	25,339	559	20,898	849	47,645
8	2025	28,202	505	19,678	810	49,195
9	2026	28,570	499	18,368	815	48,252
10	2027	31,792	480	19,216	792	52,279
11	2028	30,669	319	18,560	725	50,273
12	2029	29,794	281	18,079	698	48,852
13	2030	28,840	275	17,605	680	47,400
14	<b>Subtotal - Without Interest</b>	<b>270,181</b>	<b>5,622</b>	<b>135,537</b>	<b>10,003</b>	<b>421,343</b>
15	Interest (2018-2027)	16,562	1,005	3,991	1,341	22,898
16	<b>Total RRQ</b>	<b>286,743</b>	<b>6,626</b>	<b>139,528</b>	<b>11,344</b>	<b>444,241</b>

**APPENDIX A**

**ERNST AND YOUNG WILDFIRE MITIGATION AND  
CATASTROPHIC EVENTS COST ANALYSIS**

Pacific Gas & Electric

Catastrophic Events Cost Analysis  
*Catastrophic events and Butte rebuild costs*

November 2024





September 6, 2024

Pacific Gas & Electric  
Attn: Steve Koenig  
77 Beale Street  
San Francisco, CA 94105

Dear Mr. Koenig:

We have completed our analysis of the costs recorded in the accounts listed below to support Pacific Gas and Electric Company's ("PG&E" or "the Company") 2024 Wildfire Mitigation and Catastrophic Events Cost Recovery Application. Our procedures were performed in accordance with our Engagement Agreement, dated July 17, 2024. We analyzed the costs included in PG&E's Catastrophic Memorandum Account (CEMA), which includes CEMA costs and Butte community rebuild costs, to assess whether PG&E's recorded costs were properly recorded and reported in PG&E's application and incremental to costs previously authorized or requested for recovery.

Our report consists of three parts:

- We summarize our scope, approach, and findings in a narrative executive summary;
- We describe our testing procedures and detailed observations in the body of the report; and
- We conclude with our summary of findings and recommendations for potential exclusions.

The information provided in this report is intended to be used to support the Company's Wildfire Mitigation and Catastrophic Events Cost Recovery application that will be filed later this year with the California Public Utilities Commission ("CPUC"). The report is not intended to be, and should not be, used without our prior written consent by any other party or for any other purpose. Our calculations relied on underlying accounting information provided by the Company. The procedures that EY performed were advisory in nature and do not constitute an audit or other attest services as defined by the American Institute of Certified Public Accountants ("AICPA"). Further, they do not constitute an audit of the Company's historical financial statements in accordance with generally accepted auditing standards, nor do they constitute an examination of prospective financial statements or an examination or review of a compliance program in accordance with standards established by the AICPA.

We would be pleased to discuss any aspect of our work or this report with you or other members of management at your convenience.

Very truly yours,

*Ernst & Young LLP*

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## Introduction

Pacific Gas & Electric Company (the "Company" or "PG&E") engaged Ernst & Young LLP ("EY") to conduct an analysis of costs included in PG&E's Catastrophic Events Memorandum Account ("CEMA"). The costs within this account will be included as part of the Company's Wildfire Mitigation and Catastrophic Events Accounts ("WMCE") 2024 Cost Recovery Application (referred herein as "WMCE," "the filing," or "the application"). The scope of work for the analysis consists of storm costs from July 2023 to December 2023 (as well as costs incurred for other catastrophic events not previously filed for from January 2023 to June 2023). The scope of work also includes Butte rebuild costs from October 2018 to December 2023. This analysis does not include costs from the Vegetation Management Balancing Account ("VMBA"), the Wildfire Mitigation Balancing Account ("WMBA"), or any CEMA costs that were included in last year's 2023 WMCE filing. For clarity, costs included in this application are described as "CEMA" for traditional catastrophic event costs, and "Butte" for costs associated with the Butte community rebuild.

The purpose of the analysis was to analyze whether the costs included in the Company's cost recovery proceedings for the designated account, as captured in the Company's financial systems, reflected the costs directly attributable to CEMA. PG&E plans to use this analysis to support its WMCE application in a future proceeding.

Our analysis was conducted in accordance with the consulting professional standards in the *Statement on Standards for Consulting Services* ("SSCS") established by the American Institute of Certified Public Accountants. Furthermore, our approach is designed to achieve the principles of the National Association of Regulatory Utility Commissioners' ("NARUC") *Rate Case and Audit Manual* (2003) in an effective and efficient manner. As noted in the manual, we relied on the commonly understood concepts of "prudence" and "reasonableness" when reviewing expenses and corresponding adjustments proposed by PG&E. The manual states the purpose of applying these concepts is to "*determine a revenue requirement and customer rates that are just, fair, reasonable, and sufficient.*"

We considered legislation in California Senate Bill ("SB") 901 and Assembly Bill ("AB") 1054, which mandates activities to strengthen California's ability to prevent and recover from catastrophic wildfires. This legislation contains additional requirements for utilities to address wildfire risks, including implementing a comprehensive fire prevention plan. We embedded relevant requirements and the Company's guidance on costs related to CEMA within our testing steps and used this guidance to inform our conclusions.

We considered the California Public Utilities Commission's ("CPUC") Resolution E-3238, dated July 24, 1991, which authorized utilities to establish CEMA and to record costs of: (a) restoring utility service to its customers; (b) repairing, replacing or restoring damaged utility facilities; and (c) complying with government agency orders resulting from declared disasters. Resolution E-3238 required the utilities to notify the Commission's Executive Director by letter within 30 days after the catastrophic event, if possible, if it has started recording costs in CEMA.

We also considered Resolution ESRB-4 from the CPUC's Safety and Enforcement Division, which mandates activities to strengthen California's ability to prevent and recover from catastrophic

wildfires. This resolution contains additional requirements for utilities to address wildfire risks, including the ability to seek cost recovery through the CEMA Cost Recovery Application process. The resolution specifically notes recovered costs within CEMA must be “truly incremental” and avoid double collection of costs, which is prohibited. Additionally, the resolution requires independent, third-party review of the costs and explicitly states these provisions are meant to protect California ratepayers. We embedded requirements from ESRB-4 and the Company’s guidance on incremental costs related to CEMA within our testing steps and used this guidance to inform our conclusions.

Our procedures do not constitute an audit of the Company’s financial statements, nor do we provide any form of assurance on the financial statements as a whole. Our procedures did not constitute an audit, review or compilation as those terms are defined by the American Institute of Certified Public Accountants.

## Executive summary

### Objective

Based on information provided by PG&E relating to the costs included in the Company's cost recovery proceedings for the WMCE filing, we prepared findings and observations regarding the inclusion of these costs in CEMA based on our testing and analysis. This report summarizes our approach to the analysis and testing of the balances within the filing.

Our objectives were to:

- 1) Analyze whether the costs in the above referenced account were sufficiently supported, reasonable, and whether the costs incurred were directly attributable to the filing.
- 2) Develop observations relating to the costs and communicate those observations to the Company.
- 3) Request additional supporting documentation from the Company, analyze the facts surrounding the charges, and analyze if there were other relevant facts affecting and/or impacting the allocation of the charges to the filing.
- 4) Prepare supporting workpaper documentation for our analyses, observations, and conclusions.

The table below summarizes the total costs within CEMA provided to us by PG&E:

Table 1 - Population of CEMA by cost category<sup>1</sup>

Cost Category	Amount
<i>Phase 1: CEMA Costs</i>	
Contracts & External Labor	\$ 55,050,645
Internal Labor	\$ 18,628,245
Materials	\$ 4,700,104
Employee Expense	\$ 962,981
Overheads	\$ 427,939
Other	\$ 1,285,836
Helicopters	\$ 499,738
CEMA Population	\$ 81,555,488
<i>Phase 2: Butte Rebuild costs</i>	
Electric	\$ 1,278,298,837
Gas	\$ 362,530,912
Customer Care	\$ 892,944
Butte Population (before Oil & Insurance adjustments)	\$ 1,641,722,693
Total Gross CEMA Population	\$ 1,723,278,181

<sup>1</sup> Values within the tables throughout this report may not sum precisely due to rounding.

## *Approach*

Our approach consisted of first segregating the costs within this Application into traditional CEMA costs and Butte rebuild costs, given the unique differences in these cost populations.

- For CEMA, we segregated the costs by cost category. We performed analytics across each cost category and developed specific testing procedures<sup>2</sup> for Contracts & External Labor, Internal Labor, Materials, Employee Expense, Overheads, Other, and Helicopters based on their unique nature and associated risks. Our analysis included a combination of data analytics and detailed transaction testing, depending on the type of cost being analyzed. For internal charges, our analysis included performing analytics to identify unusual or potentially unrelated activity, and selecting targeted samples based on the results of our analytics and past findings, among other risks. External charges, (e.g., Contracts & External Labor), which make up 70% of the costs in CEMA, were subject to analytics as well as statistical sampling. See Appendix A for further detail on the sample design and extrapolation. Unsupported transactions identified during the testing of the statistical sample were extrapolated to reflect the estimated error in the entire population. We conducted testing on approximately \$39.5M of costs, representing 48% of the total costs incurred. Our selections for detailed transaction testing varied by category, considering factors such as transaction volume and dollar value.
- For Butte, we segregated the costs by the "Order" field in SAP. We performed analytics over the population of orders and developed specific testing procedures which included assessing project orders from creation to execution, as well as testing transactions in more detail. We conducted testing on approximately \$329M of costs, representing 20% of the total costs incurred.

Additionally, we engaged in discussions with multiple functional areas within the organization. The combination of analytical procedures, statistical sampling, and transaction testing is designed to provide adequate coverage across all cost categories within the scope of these accounts.

In addition to the analytical procedures and transaction testing, we also considered the incrementality of CEMA costs compared to the last approved General Rate Case ("GRC") and other mechanisms. We obtained the last GRC filing with supporting schedules to gain an understanding of the type and nature of costs included within current base rates. Based on the information analyzed, CEMA costs included in this application are incremental to base rates.

EY had previously been engaged to analyze the Wildfire Mitigation Plan Memorandum Account ("WMPMA"), Fire Risk Mitigation Memorandum Account ("FRMMA"), Fire Hazard Prevention Memorandum Account ("FHPMA"), Wildfire Mitigation Balancing Account ("WMBA"), Vegetation Management Balancing Account ("VMBA"), and CEMA. For these accounts, we have analyzed approximately \$12.1B of wildfire and catastrophic event costs. Over the course of these engagements, we have collected and retained transaction level detail for each account listed above. We analyzed the Company's SAP data included within the scope of this report by comparing the data to transaction detail collected and retained for the accounts listed above. Our analysis was based on the SAP fields

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<sup>2</sup> Our tailored testing procedures are further described within the "Procedures Performed" section of this report.

provided, including Cost Element, Order and CO Document Numbers. To date, we have not identified evidence of costs recorded on more than one account.

*Findings and conclusions*

In the total population for this filing, we identified items totaling approximately \$2.1M (extrapolated to \$3.1M) of expenditures that were not properly evidenced for inclusion in CEMA. Of that total, \$258K (extrapolated to \$394K) was identified in Phase 1 CEMA and \$1.9M (extrapolated to \$2.7M) was identified in Phase 2 Butte. These findings are described in further detail throughout our report.

## Phase 1: CEMA costs

### Procedures performed

The following section describes the detailed procedures performed for each category of cost within the CEMA population, mentioned in the table below:

Table 2 – Population of CEMA by cost category<sup>3</sup>

Cost Category	Amount
Contracts & External Labor	\$ 55,050,645
Internal Labor	\$ 18,628,245
Materials	\$ 4,700,104
Employee Expense	\$ 962,981
Overheads	\$ 427,939
Other	\$ 1,285,836
Helicopter	\$ 499,738
Total CEMA Population	\$ 81,555,488

### Contract costs

Table 3 – Population of contract costs

Cost Category	Amount	Percent of Total Population
Contracts & External Labor	\$ 55,050,645	67.5%

### Approach

We performed analytics across the population of contract costs and performed detailed transaction testing. Detailed transaction testing was performed on approximately \$38.6M of contract costs or approximately 70.2% of the population of approximately \$55.1M. To arrive at a population of \$55.1M for contract costs, we used cost guidance<sup>4</sup> provided by PG&E to segregate data into cost categories using the "Cost Element" field in the SAP data provided to us.

From the total population of approximately \$55.1M, we applied a statistical sampling methodology. The purpose of designing a stratified sample is to increase the efficiency and precision through a smaller sample compared to a simple random sample. During this process, the population of \$55.1M was converted into the sampling population and then divided into groups called strata. The samples selected were weighted to reflect the sampling rates for each of the different strata. A statistical

<sup>3</sup> Values within the tables throughout this report may not sum precisely due to rounding.

<sup>4</sup> Referenced in Appendix C, "Business Finance Training - Introduction to the Cost Model.pptx"

sampling report for CEMA is included as Appendix A to this report. Our testing approach included analyzing invoices, contracts, purchase orders and other potentially relevant contemporaneous information for the sample selection.

*In addition to statistical sampling, we performed the following analytics on contract costs*

We performed the following analytics across the population of contract costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA:

- 1) Assessed description fields within the SAP data, such as "CE Desc," to identify activities that appear unusual or unrelated to CEMA.
- 2) Analyzed contract costs by memorandum account, cost type (capital or expense), planning order and CEMA event to understand the distribution of contract costs.
- 3) Analyzed Supplier Names to identify potentially unusual vendors.
- 4) Analyzed the SAP data and "CEMA Event"<sup>5</sup> fields to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:
  - a. For each CEMA Event provided, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.
  - b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
  - c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

*We performed the following steps in our transaction testing of contract costs*

To test contract costs at the transactional level, we developed testing criteria (discussed below) and documented the results of the procedures performed, relevant observations, and suggested exclusions in the case files for each transaction.

The detailed testing steps were as follows:

- 1) Reconciliation of SAP data to supporting documentation
  - a) Analyzed the underlying documentation to determine whether an invoice from a third party was provided.
  - b) Upon receipt of an invoice, compared the invoice amount, vendor name, and other relevant identifiers to the relevant fields of SAP data to test whether vendor names were consistent and dollar amounts agreed.
  - c) If an invoice or the underlying support was lacking sufficient information or was illegible, it was noted that additional documents or confirmations were needed to support the transaction amount.
- 2) Reasonableness testing:

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<sup>5</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

- a) Performed analyses to determine if a transaction was reasonably and prudently incurred for the services provided by recalculating unit prices under each cost category (e.g., labor, equipment, materials, per diem, reimbursable expenses) and comparing those unit prices to prices charged by other vendors performing similar services. Where we did not have benchmarking data from other vendors performing similar services, other publicly available information including GSA Schedules, publications, public rate filings, etc. were considered. Where outliers were identified, additional documentation was requested. Additional procedures performed and the results of those procedures were documented within the relevant case files.
  - b) Analyzed invoices, receipts, and other third-party support to determine whether vendors billed for items that are prohibited by PG&E's employee expense policy, such as alcohol, tobacco, or personal products and services.
- 3) Incremental nature of the transaction:
- a) Analyzed the information provided in the invoice, contract, and other support to determine whether the activity recorded in CEMA appears to be incremental activity. We relied on Company policies and other guidance from PG&E described below to help identify the nature and timing of various incremental activities in addition to what was included in prior GRC proceedings.
    - i) Evaluated guidance contained in Resolution E-3238, which authorized utilities to establish a Catastrophic Events Memorandum Account to record costs resulting from government agency declared disasters. The purpose of this account is to record costs associated with:
      - (a) Restoring utility service to its customers,
      - (b) Repairing, replacing, or restoring damaged utility facilities, and
      - (c) Complying with government agency orders resulting from declared disasters.
  - b) Analyzed the date range for services provided within the invoice and documented whether the services took place during the applicable scope period for the filing and within the restoration period for the federal or state declared emergency.
  - c) Analyzed the location for services provided within the invoice and documented whether the services occurred in locations impacted by the federal or state declared emergency.
- 4) For observations requiring further consideration, we requested additional documentation and held discussions with PG&E stakeholders to better understand the nature of the transactions and their inclusion in CEMA. In some instances, transactions were either partially or fully unsupported. On a case-by-case basis, the dollar amount that did not fully meet the testing requirements was calculated and recommended for exclusion from the filing.

*We made the following observations in our testing of contract costs*

As a result of the procedures described above, approximately \$104K extrapolated to \$241K of contract costs exclusions were identified within our testing:

- 1) Not CEMA-related: Noted two instances where the activities/services billed did not appear CEMA-related. Activities billed included "land services to support PG&E undergrounding" and "system inspections and pole T&T." At the time of the filing, there was insufficient detail to support the inclusion of these costs in the filing.
- 2) Not in CEMA Location: Noted one instance with insufficient location support to justify inclusion of costs in this filing. The contract costs related to those orders were recommended for exclusion.

- 3) Not reasonable/prudent: Noted seven instances where vendors charged markups on pass-through reimbursable expenses (e.g., travel expenses, supplies purchased, etc.). Noted two instances of lodging exceeding GSA rates. Noted one instance of meals billed in addition to subsistence. Noted two instances of hotel charges for employees who did not charge time to CEMA orders.
- 4) Prohibited Items: Noted one instance of a vendor charging personal expenses and alcohol.
- 5) Unsupported: Noted three instances where subcontractor and travel charges lacked sufficient support.

Table 4 – Contract cost exclusions<sup>6</sup>

Exclusion Type	Total Amount Excluded
Not CEMA-related	\$ 767
Not in CEMA location	\$ 1,430
Not reasonable/prudent	\$ 39,819
Prohibited Items	\$ 13,425
Unsupported	\$ 48,599
Total exclusions	\$ 104,040
Extrapolated total	\$ 240,546

*We performed additional testing of contract costs classified as accruals*

PG&E records an Estimated Goods Receipt (“EGR”) to accrue for costs it believes to have been incurred but not yet invoiced. PG&E will reverse EGRs in a subsequent period and record the actual invoiced amount as a “true-up” entry. For transactions identified as accruals within our selections, we obtained a Purchase Order History demonstrating the transaction we sampled was an EGR, or net zero entry. We selected accrual transactions within our selections totaling approximately \$7.8M and performed the following additional procedures to test the timing of the accrual entry and reasonableness of the accrual estimate:

- 1) Reasonableness of estimate:
  - i) We compared the accrual amount to the invoiced amount to assess the reasonableness of the estimate of services. A transaction was determined to be reasonable if the total accrued amount within the Purchase Order History was less than or approximately equal to the total invoiced amount for the relevant purchase order.
- 2) Cut-off testing:
  - i) We conducted cut-off testing to determine if the timing of the accrual entry was properly evidenced compared to the date or range of dates the services were performed on the invoice and the date the transaction was recorded in SAP. A transaction was determined to be properly evidenced if the work was performed prior to the accrual date, an invoice was

<sup>6</sup> Values within the tables throughout this report may not sum precisely due to rounding.

received and recorded after the accrual date, and the accrual amount was ultimately reversed.

*We made the following observations in our testing of accruals*

From our sample selected for testing, accrual transactions appeared to be recorded in the proper period and supported by invoices for services rendered. Based on our procedures described above, we did not identify any exclusions from the total population of contract costs related to accruals.

**Internal labor**

Table 5 – Population of internal labor costs

Cost Category	Amount	Percent of Total Population
Internal labor	\$ 18,628,245	22.8%

*Approach*

To arrive at a population of \$18.6M for internal labor charges, we used cost guidance provided by PG&E to segregate data into cost categories using the "Cost Element" and "CE Desc" fields.

*We performed the following analytics on internal labor*

We analyzed the population of internal labor costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA by performing the following procedures:

- 1) Assessed description fields within the SAP data, such as "CE Desc," to identify activities that appear unusual or unrelated to CEMA.
- 2) Analyzed the percentage of internal labor costs compared to other cost categories by "Order" and "Planning Order" to identify potentially unusual patterns in internal labor charges.
- 3) Assessed total labor charges per day (by "Posting Date" and "Document Date" fields) and compared high daily amounts to event dates to identify potentially unusual trends in labor.
- 4) Conducted an analysis of distribution of straight time, overtime, and double time charges per day to identify potentially unusual trends.
- 5) Analyzed the SAP data and "CEMA Event"<sup>7</sup> field to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:
  - a. For each CEMA Event identified, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.

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<sup>7</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

- b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
- c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

*We performed the following steps in our testing of internal labor*

We provided PG&E with the transactions identified through analytics performed and requested supporting detail regarding the nature of these transactions and their inclusion in CEMA. In response to our request, PG&E provided supporting detail and explanations for the transactions identified. Based on explanations provided by PG&E, we concluded whether amounts had sufficient justification for inclusion.

*We made the following observations in our testing of internal labor*

As a result of the procedures described above, we identified approximately \$3K of internal labor charges for exclusion:

- Not CEMA-related: Noted eight instances with insufficient location support to justify inclusion of costs in this filing. The internal labor costs related to those orders were recommended for exclusion.
- Outside of storm/restoration period: Noted twenty-seven instances of internal labor charges that were incurred before the CEMA event start date.

Table 6 – Internal labor cost exclusions<sup>8</sup>

Exclusion Category	Total Amount Excluded
Not in CEMA Location	\$ 667
Outside of storm/restoration period	\$ 2,698
Total exclusions	\$ 3,365

## Materials

Table 7 – Population of material costs

Cost Category	Amount	Percent of Total Population
Materials	\$ 4,700,104	5.8%

<sup>8</sup> Values within the tables throughout this report may not sum precisely due to rounding.

## *Approach*

To arrive at a population of \$4.7M for materials charges, we used cost guidance provided by PG&E to segregate data into cost categories using the "Cost Element" and "CE Desc" fields. We performed analytics across the materials population and selected transactions totaling approximately \$627K, or 13.3% of the population, for testing.

### *We performed the following analytics on materials*

We analyzed the population of material costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA by performing the following procedures:

- 1) Assessed description fields within the SAP data, such as "CE Desc," to identify activities that appear unusual or unrelated to CEMA. Identified several categories that appeared to be general or miscellaneous costs, including supplies, lighting fixtures, and "Materials Not Otherwise Classified", as well as material costs listed as "Gas & Water Specialties".
- 2) Analyzed the percentage of material costs compared to other cost categories by "Order," "Planning Order" and "CEMA Event," to identify potentially unusual patterns in material charges. Identified material costs that exceed 70% of planning orders as well as material costs that exceed 50% of total CEMA Event costs.
- 3) Analyzed costs by "Supplier Name" to identify unusual vendors and determine vendors (or individuals) with the highest and lowest cumulative spend.
- 4) Analyzed the SAP data and "CEMA Event"<sup>9</sup> field to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:
  - a. For each CEMA Event identified, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.
  - b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
  - c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

Based on the results of our analytics, we judgmentally selected material transactions totaling approximately \$627K for further testing.

### *We performed the following steps in our testing of materials*

To test materials at the transactional level, we developed testing criteria (discussed below) and documented the results of the procedures performed, relevant observations, and suggested exclusions in the case files for each transaction.

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<sup>9</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

The detailed testing steps were as follows:

- 1) Reconciliation of SAP data to supporting documentation
  - a) Analyzed the underlying documentation to determine whether sufficient support was provided.
  - b) Compared information contained within the support to the relevant fields of SAP data to test whether descriptions were consistent, and dollar amounts agreed.
  - c) If the underlying support was lacking sufficient information or was illegible, it was noted that additional documents or confirmations were needed to support the transaction amount.
- 2) Reasonableness testing:
  - a) Performed analyses to determine if a transaction was reasonably and prudently incurred for the materials purchased by recalculating unit prices and comparing those unit prices to prices charged by other vendors selling similar materials. Where we did not have benchmarking data from other vendors selling similar materials, other publicly available information including publications, public rate filings, etc. were considered. Where outliers were identified, additional documentation was requested. Additional procedures performed and the results of those procedures were documented within the relevant case files.
- 3) Incremental nature of the transaction:
  - a) Analyzed the information provided in the supporting documentation to determine whether the activity recorded in CEMA appears to be incremental activity. We relied on Company policies and other guidance from PG&E described below to help identify the nature and timing of various incremental activities in addition to what was included in prior GRC proceedings.
    - i) Evaluated guidance contained in Resolution E-3238, which authorized utilities to establish a Catastrophic Events Memorandum Account to record costs resulting from government agency declared disasters. The purpose of this account is to record costs associated with:
      - (1) Restoring utility service to its customers,
      - (2) Repairing, replacing, or restoring damaged utility facilities, and
      - (3) Complying with government agency orders resulting from declared disasters.
  - b) Analyzed the date range for materials purchased and documented whether the services took place during the applicable scope period for the filing and within the restoration period for the federal or state declared emergency.
  - c) Analyzed the location of materials purchased and documented whether the services occurred in locations impacted by the federal or state declared emergency.
- 4) For observations requiring further consideration, we requested additional documentation and held discussions with PG&E stakeholders to better understand the nature of the transactions and their inclusion in CEMA. In some instances, transactions were either partially or fully unsupported. On a case-by-case basis, the dollar amount that did not fully meet the testing requirements was calculated and recommended for exclusion from the filing.

*We made the following observations in our testing of materials*

As a result of the procedures described above, we identified approximately \$73K of material costs for exclusion.

- Not CEMA-related: Noted eight transactions with small, common materials such as bolts and screws, which should be excluded from CEMA, in accordance with CEMA A.18-12-009.
- Not in CEMA location: Noted one transaction where poles were delivered to a location that bordered the counties listed for that specific event under the emergency proclamation. At the

time of this report, there was insufficient evidence to conclude that the materials were used for the CEMA event specified.

Table 8 – Materials cost exclusions<sup>10</sup>

Exclusion Category	Total Amount Excluded
Not CEMA-related	\$ 46,612
Not in CEMA location	\$ 26,544
Total exclusions	\$ 73,156

## Employee expense

Table 9 – Population of employee expenses

Cost Category	Amount	Percent of Total Population
Employee Expense	\$ 962,981	1.2%

## Approach

To arrive at a population of \$963K for employee expense charges, we used cost guidance provided by PG&E to segregate data into cost categories using the "Cost Element" and "CE Desc" fields. We performed analytics across the employee expense population and selected transactions totaling approximately \$247K, or approximately 25.6% of the population, for testing.

### *We performed the following analytics on employee expenses*

We analyzed the population of employee expense costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA by performing the following procedures:

- 1) Assessed description fields within the SAP data, such as "CE Desc," to identify activities that appear unusual or unrelated to CEMA and description categories with exclusions in prior years.
- 2) Analyzed the percentage of employee expense costs compared to internal labor costs by "Order," "Planning Order" and "CEMA Event" to identify potentially unusual patterns in employee expense charges.
- 3) Analyzed costs to identify employees with the highest cumulative spend.
- 4) Analyzed the SAP data and "CEMA Event"<sup>11</sup> field to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:

<sup>10</sup> Values within the tables throughout this report may not sum precisely due to rounding.

<sup>11</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

- a. For each CEMA Event identified, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.
- b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
- c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

Based on the results of our analytics, we judgmentally selected employee expense transactions totaling approximately \$247K for further testing.

*We performed the following steps in our testing of employee expenses*

To test employee expenses at the transactional level, we developed testing criteria (discussed below) and documented the results of the procedures performed, relevant observations, and suggested exclusions in the case files for each transaction.

The detailed testing steps were as follows:

- 1) Reconciliation of SAP data to supporting documentation
  - a) Analyzed the underlying documentation (e.g., expense reports, receipts) to determine whether employee expenses were sufficiently supported.
  - b) Compared amount, employee name, and other relevant identifiers in the supporting documentation to the relevant fields of SAP data to test whether names were consistent, and dollar amounts agreed.
  - c) If underlying support was lacking sufficient information or was illegible, it was noted that additional documents or confirmations were needed to support the transaction amount.
- 2) Reasonableness testing:
  - a) Performed analyses to determine if a transaction was reasonably and prudently incurred for employee expenses by recalculating unit prices and comparing those unit prices to prices charged by other vendors using publicly available information. Where outliers were identified, additional documentation was requested. Additional procedures performed and the results of those procedures were documented within the relevant case files.
  - b) Analyzed invoices, receipts, and other support to determine whether employee expense reports included items prohibited by PG&E's employee expense policy, such as alcohol, tobacco, or personal products and services.
- 3) Incremental nature of the transaction:
  - a) Analyzed the information provided in the supporting documentation to determine whether the activity recorded in CEMA appears to be incremental activity. We relied on Company policies and other guidance from PG&E described below to help identify the nature and timing of various incremental activities in addition to what was included in prior GRC proceedings.
  - b) Evaluated guidance contained in Resolution E-3238, which authorized utilities to establish a Catastrophic Events Memorandum Account to record costs resulting from government agency declared disasters. The purpose of this account is to record costs associated with:

- (1) Restoring utility service to its customers,
  - (2) Repairing, replacing, or restoring damaged utility facilities, and
  - (3) Complying with government agency orders resulting from declared disasters.
- c) Analyzed the date range for employee expenses provided within the invoices, receipts, and other support and documented whether the services took place during the applicable scope period for the filing and within the restoration period for the federal or state declared emergency.
- d) Analyzed the location of employee expenses within the invoices, receipts and other support and documented whether the services occurred in locations impacted by the federal or state declared emergency.
- 4) For observations requiring further consideration, we requested additional documentation and held discussions with PG&E stakeholders to better understand the nature of the transactions and their inclusion in CEMA. In some instances, transactions were either partially or fully unsupported. On a case-by-case basis, the dollar amount that did not fully meet the testing requirements was calculated and recommended for exclusion.

*We made the following observations in our testing of employee expenses*

As a result of the procedures described above, we identified employee expenses that did not appear to be reasonably or prudently incurred totaling approximately \$5K. This transaction included unsupported travel charges and meals in excess of per diem rates.

Table 10 – Employee expense cost exclusions

Exclusion Type	Total Amount Excluded
Not reasonable/prudent	\$ 5,530
Total	\$ 5,530

## Overheads

Table 11 – Population of overhead costs

Cost Category	Amount	Percent of Total Population
Overheads	\$ 427,939	0.5%

## Approach

To arrive at a population of approximately \$428K for overhead charges, we used cost guidance provided by PG&E to segregate data into cost categories using the "Cost Element" and "CE Desc" fields.

*We performed the following analytics on overhead data:*

We analyzed the population of overhead costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA by performing the following procedures:

- 1) Assessed description fields within the SAP data, such as "CE Desc," to identify activities that appear unusual or unrelated to CEMA.
- 2) Analyzed the SAP data and "CEMA Event"<sup>12</sup> field to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:
  - a. For each CEMA Event identified, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.
  - b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
  - c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

*We performed the following steps in our testing of overheads:*

We tested the overhead population to identify potential overhead costs that do not belong in CEMA. Using "Cost Element" and "CE Desc" fields, we mapped the overheads in the CEMA SAP data to the general overhead buckets and analyzed balances to determine if amounts aligned with the following Company guidance<sup>13</sup>:

Table 12 – PG&E overhead guidance

Overheads included in CEMA	CEMA Expense	CEMA Capital
Capitalized A&G		
Paid Time Off		
Indirect Labor		
Operational Management and Support		
Fleet		X
Material Burden		
Building Services		
IT Device Services		
Benefits		
Payroll Taxes		X

<sup>12</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

<sup>13</sup> "Current & Future Overheads Allocations Guidance Provided\_2023.png," which is also cited in Appendix C.

Minor Materials		X
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We then requested a list of cost elements that PG&E will remove prior to the filing and compared PG&E’s list with the overheads contained in this population.

*We made the following observations in our testing of overhead costs*

As a result of the procedures described above, we identified overhead cost exclusions of approximately \$62K. Overhead cost exclusions are grouped into the following reporting categories:

- Does Not Align to PG&E Overheads Guidance<sup>14</sup>: Identified overheads with cost element descriptions resembling minor material overheads, i.e., “Working Stock” and “Spoils & Other.” These overheads were charged to expense orders but not removed from CEMA, in accordance with their guidance.
- Not in CEMA Location: Noted eight instances with insufficient location support to justify inclusion of costs in this filing. The overhead costs related to those orders were recommended for exclusion.

Table 13 – Overhead cost exclusions<sup>15</sup>

Exclusion Category	Total Amount Excluded
Does Not Align to PG&E Overheads Guidance	\$ 61,666
Not in CEMA Location	\$ 22
Total	\$ 61,688

## Other

Table 14 – Population of other costs

Cost Category	Amount	Percent of Total Population
Other	\$ 1,285,836	1.6%

## Approach

To arrive at a population of approximately \$1.3M for other charges, we used cost guidance provided by PG&E to segregate data into cost categories using the “Cost Element” and “CE Desc” fields.

*We performed the following analytics on other data:*

<sup>14</sup> “Current & Future Overheads Allocations Guidance Provided\_2023.png,” which is also cited in Appendix C.

<sup>15</sup> Values within the tables throughout this report may not sum precisely due to rounding.

We performed the following procedures to analyze the population of other costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA:

- 1) Assessed description fields within the SAP data, such as "CE Desc," to identify activities that appear unusual or unrelated to CEMA.
- 2) Analyzed the SAP data and "CEMA Event"<sup>16</sup> field to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:
  - a. For each CEMA Event identified, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.
  - b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
  - c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

*We performed the following steps in our analytics of other costs*

We provided PG&E with the transactions identified through analytics performed and requested supporting detail regarding the nature of these transactions and their inclusion in CEMA. In response to our request, PG&E provided supporting detail and explanations for the transactions identified. Based on explanations provided by PG&E, we concluded whether amounts had sufficient justification for inclusion.

*We made the following observations in our analytics of other costs*

As a result of the procedures described above, we identified approximately \$10K with the description "Wildfire Fund Expense" for exclusion. At the time of this report, there was insufficient evidence to conclude that these costs should be included in CEMA.

Table 15 – Other cost exclusions

Exclusion Category	Total Amount Excluded
Not CEMA-related	\$ 9,800
Total exclusions	\$ 9,800

## Helicopters

Table 16 – Population of helicopter costs

Cost Category	Amount	Percent of Total Population
Helicopters	\$ 499,738	0.6%

<sup>16</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

## *Approach*

To arrive at a population of approximately \$500K for helicopter charges, we used cost guidance provided by PG&E to segregate data into cost categories using the "Cost Element" and "CE Desc" fields.

### *We performed the following analytics on helicopter data:*

We performed the following procedures to analyze the population of helicopter costs to identify activities that appear unusual, unreasonable, or unrelated to CEMA:

- 1) Assessed description fields within the SAP data, such as "CE Desc" and "Order Desc," to identify activities that appear unusual or unrelated to CEMA.
- 2) We analyzed total helicopter charges included in this filing compared to amounts included in prior filings to assess trends in helicopter usage over the years.
- 3) We analyzed the average daily costs of helicopter charges in this CEMA filing compared to average costs in prior years to identify any potential outliers.
- 4) Analyzed the SAP data and "CEMA Event"<sup>17</sup> field to identify costs that were potentially out-of-scope or unrelated to the events included in this CEMA filing:
  - a. For each CEMA Event identified, we researched and documented the counties impacted and event start dates provided in the emergency proclamations and CEMA guidance.
  - b. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamations.
  - c. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the catastrophic event.

### *We performed the following steps in our testing of helicopter costs*

We provided PG&E with the transactions identified through analytics performed and requested supporting detail regarding the nature of these transactions and their inclusion in CEMA. In response to our request, PG&E provided supporting detail and explanations for the transactions identified. Based on explanations provided by PG&E, we concluded whether amounts had sufficient justification for inclusion.

### *We made the following observations in our analytics of helicopter costs*

As a result of the procedures described above, we did not identify any amounts that appeared outside the scope of CEMA activities.

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<sup>17</sup> CEMA Event field was a mapped field provided by PG&E. A CEMA event is defined as a declared state or federal disaster.

## Phase 1 - Findings and conclusions

### Conclusions

As a result of the procedures described above, we identified transactions totaling approximately \$258K (extrapolated to \$394K) that were not properly evidenced for inclusion in CEMA.

Table 17 - Observations for potential exclusion<sup>18</sup>

Cost Category	Exclusion Type	Total Amount Excluded
Contract	Not CEMA-related	\$ 767
Contract	Not in CEMA Location	\$ 1,430
Contract	Not reasonable/prudent	\$ 39,819
Contract	Prohibited Items	\$ 13,425
Contract	Unsupported	\$ 48,599
Internal Labor	Not in CEMA Location	\$ 667
Internal Labor	Outside of storm/restoration period	\$ 2,698
Materials	Not CEMA-related	\$ 46,612
Materials	Not in CEMA Location	\$ 26,544
Employee Expense	Not reasonable/prudent	\$ 5,530
Overheads	Does Not Align to PG&E Overheads Guidance	\$ 61,666
Overheads	Not in CEMA Location	\$ 22
Other	Not CEMA-related	\$ 9,800
Total exclusions		\$ 257,579
Extrapolated Total		\$ 394,084

<sup>18</sup> Values within the tables throughout this report may not sum precisely due to rounding.

## Phase 2: Butte costs

### Procedures performed

The following section describes the detailed procedures performed on the Butte rebuild costs related to the 2018 Camp Fire. We analyzed the gross amount of Butte rebuild costs, before OII disallowances<sup>19</sup> and insurance adjustments, as shown in the table below, to assess that costs were sufficiently supported, charged to the right accounts, reasonable and prudent, and related to Butte rebuild efforts.

Table 18 – Population of Butte costs<sup>20</sup>

Cost Category	Amount
<i>Phase 2: Butte Rebuild costs</i>	
Electric	\$ 1,278,298,837
Gas	\$ 362,530,912
Customer Care	\$ 892,944
Butte Population (before adjustments)	\$ 1,641,722,693
Adjustments:	
Insurance Proceeds	\$ (282,466,330)
OII Disallowances	\$ (738,258,264)
Butte Population (before OII & Insurance adjustments)	\$ 620,998,099

### Approach

We analyzed the gross population of approximately \$1.64B in costs related to Butte rebuild and restoration efforts from the 2018 Camp Fire in Paradise, CA. We segregated the population into “projects” by order number and performed analytics across the population.

From the total gross population, we applied a statistical sampling methodology and identified a sample of orders totaling \$329M to test in more detail. The purpose of designing a stratified sample is to increase the efficiency and precision through a smaller sample compared to a simple random sample. During this process, the population of \$1.64B is converted into the sampling population and then divided into groups called strata. The samples selected are weighted to reflect the sampling rates for each of the different strata. A statistical sampling report for Butte is included as Appendix B to this report.

Our testing approach included analyzing a sample of orders to assess Butte rebuild projects from project initiation to close-out to determine whether orders were sufficiently supported, justified and

<sup>19</sup> “OII disallowances” refer to the penalties and/or other remedies addressed in the settlement resolving Investigation and Order to Show Cause (I.) 19-06-015 (“Investigation or OII”).

<sup>20</sup> Values within the tables throughout this report may not sum precisely due to rounding.

approved prior to execution. We also selected a sample of transactions to test actual order costs against invoices, contracts, purchase orders and other potentially relevant contemporaneous information.

*We performed the following analytics on Butte data*

We analyzed the population of costs and performed the following analytics to identify activities that appear unusual, unreasonable, or unrelated to Butte rebuild activities:

- 1) Analyzed description fields within the SAP data, such as "CE Desc" and "Order Desc," to identify activities that appear unusual or unrelated to Butte rebuild activities.
- 2) Analyzed the SAP data fields to identify costs that were potentially out-of-scope or unrelated to Butte rebuild activities:
  - a. We analyzed the description fields in the SAP data, including "Order Desc" to identify descriptions of locations that did not align to counties stated in the emergency proclamation for the 2018 Camp Fire.
  - b. We assessed relevant date fields in the SAP data, including "Posting Date" and "Document Date," to identify any costs incurred prior to the start of the 2018 Camp Fire.

*We performed the following steps in our testing of Butte orders*

We tested a statistical sample of capital orders totaling \$382M to assess whether appropriate project management policies and procedures are being followed during the project lifecycle, from project initiation to close-out, including specified outputs and management approvals at each stage.

The detailed testing steps were as follows:

- 1) Held walkthroughs with key stakeholders to understand the project lifecycle and project management procedures and controls in place.
- 2) Requested supporting documentation for sample of orders selected.  
Analyzed project plans, designs and estimation summaries obtained from SAP to assess whether orders were sufficiently documented, planned, justified, and approved prior to execution.
- 3) Analyzed supporting documentation to assess whether projects were sufficiently documented and executed in accordance with plans. This included:
  - a. Evaluating whether assets constructed were defined and sufficiently documented.
  - b. Assessing documentation of any changes to planned procedures and estimates and assessing the reason for those changes.
- 4) Analyzed AsBuilt and Construction Completion packages to assess whether projects related to Butte rebuild activities.
  - a. Evaluated project details to understand the type of work that was performed and assets that were constructed to assess whether projects were related to Butte rebuild activities.

- b. Evaluated project locations to determine where the assets were located and whether the work locations were within the geographical areas impacted by the 2018 Camp Fire.
  - c. Evaluated the project timing and compared project initiation and completion dates to the restoration period.
- 5) For a sample of orders, we performed site visits to corroborate the existence of assets and demonstrate assets are in service, used, and useful.

*We performed the following steps in our testing of Butte transactions*

We performed detailed transaction testing to assess costs recorded on the orders selected for testing. To test Butte costs at the transactional level, we developed testing criteria (discussed below) and documented the results of the procedures performed, relevant observations, and suggested exclusions were recorded in the case files for each transaction.

The detailed testing steps were as follows:

- 1) Reconciliation of SAP data to supporting documentation:
  - a) Analyzed the underlying documentation to determine whether an invoice from a third party was provided.
  - b) Upon receipt of an invoice, compared the invoice amount, vendor name, and other relevant identifiers to the relevant fields of SAP data to test whether vendor names were consistent and dollar amounts agreed.
  - c) If an invoice or the underlying support was lacking sufficient information or was illegible, it was noted that additional documents or confirmations were needed to support the transaction amount.
- 2) Reasonableness testing:
  - a) Performed analyses to determine if a transaction was reasonably and prudently incurred for the services provided by recalculating unit prices under each cost category (e.g., labor, equipment, materials, per diem, reimbursable expenses) and comparing those unit prices to prices charged by other vendors performing similar services. Where we did not have benchmarking data from other vendors performing similar services, other publicly available information including GSA Schedules, publications, public rate filings, etc. were considered. Where outliers were identified, additional documentation was requested. Additional procedures performed and the results of those procedures were documented within the relevant case files.
  - b) Analyzed invoices, receipts, and other third-party support to determine whether vendors billed for items that are prohibited by PG&E's employee expense policy, such as alcohol, tobacco, or personal products and services.
- 3) Incremental nature of the transaction:
  - a) Analyzed the information provided in the invoice, contract, and other support to determine whether the activity recorded appears to be incremental activity related to Butte rebuild activities. We relied on Company policies and other guidance from PG&E described below to help identify the nature and timing of various incremental activities in addition to what was included in prior GRC proceedings.
    - i) The GRC final decision confirmed that undergrounding work associated with the Butte Community rebuild should seek cost recovery through the Catastrophic Event Memorandum Account.

- ii) We also evaluated guidance contained within Advice Letter 5842-E and the decisions related to Investigation 19-06-015, D.20-05-019 and D.20-12-015, which includes the penalties and/or other remedies to address PG&E's role in the 2017 and 2018 wildfires.
  - b) Analyzed the date range for services provided within the invoices, receipts, and other support and documented whether the services took place during the applicable scope period for the filing and within the restoration and rebuild period for the 2018 Camp Fire.
  - c) Analyzed the location of services within the invoices, contracts, and other support and documented whether the services occurred in locations impacted by the 2018 Camp Fire.
- 4) For observations requiring further consideration, additional procedures were performed. In some instances, transactions can be either partially or fully unsupported. On a case-by-case basis, the dollar amount that did not fully meet the testing requirements was calculated and recommended for exclusion.

*We made the following observations in our testing of Butte costs*

As a result of the procedures described above, we identified \$1.9M (extrapolated to \$2.7M) recommended for exclusion.

- Not Butte Related: We noted four instances where costs did not appear related to Butte rebuild activities, such as, "Electric Standards and Governance" training, "Cost Validation Services", "Electrical Ops Technical Project," and "EO Resource Plan Data Modeling." At the time of filing, there was insufficient detail to support the inclusion of these costs in the filing.
- Not in Butte County: We noted seventy-eight instances where costs were incurred outside of Butte County, e.g., Shasta County, Alameda County, and Harrisburg, Pennsylvania.
- Outside of Storm/Restoration Period: Noted two hundred forty-five transactions charged prior to the start date of the 2018 Camp Fire.
- Not Reasonable/Prudent: We noted four instances of costs that did not appear reasonable or prudent. Noted an instance of a vendor miscalculation/error. Identified one instance of a vendor charging premium time during normal operating hours on a non-holiday weekday. We also identified costs in the population for "Outside Attorney Fees." Given the nature and scrutiny surrounding this event, we do not believe it is reasonable or prudent to seek legal fees for recovery.
- Unsupported: We noted two instances where the transaction had no supporting documentation (e.g., invoice) and three instances were subcontractor, fuel, and miscellaneous material charges lacked sufficient detail and supporting receipts.

*We performed the following steps in our analysis of OII Disallowances*

We obtained the OII Settlement agreement, advice letter, and supporting workpapers. We compared actual allocations to the support obtained. The OII Settlement disallowed \$1.823B of wildfire-related expenses and capital expenditures from the Fire Risk Mitigation Memorandum Account ("FRMMA"), Wildfire Mitigation Plan Memorandum Account ("WMPMA"), Transmission safety expenses in the

Federal Energy Regulatory Commission ("FERC") accounts, Fire Hazard Prevention Memorandum Account ("FHPMA"), and CEMA.<sup>21</sup> In total, PG&E applied the full amount of the OII disallowances.

For the 2018 Camp Fire specific disallowances, there was a \$53M difference in disallowances applied compared with Advice letter 5842-E for "2018 Camp CEMA Capital for Temp Facilities".

Table 19 - OII Disallowances applied to 2018 Camp Fire costs

Butte Specific OII Disallowances	Amount to be Written Off per Settlement Agreement	PG&E Applied Disallowances	Difference
2018 Camp Fire CEMA Expense	\$ 435,000,000	\$ 448,603,663	\$ 13,603,663
2018 Camp Fire CEMA Capital for Restoration	\$ 253,000,000	\$ 258,755,987	\$ 5,755,987
2018 Camp CEMA Capital for Temp Facilities	\$ 84,000,000	\$ 30,678,985	\$ (53,321,015)
Total	\$ 772,000,000	\$ 738,038,635	\$ (33,961,365)

Based on discussions with PG&E personnel, PG&E did not incur more than \$31M related to capital temporary facilities to date. Based on the schedules obtained,<sup>22</sup> it appears PG&E applied the remaining offsets to expenses in other accounts, primarily to Transmission Safety Repairs Expenses recovered at FERC and Distribution Safety Inspections Expenses included in the FRMMA/WMPMA. According to a note in the advice letter,<sup>23</sup> "Pending final recorded amounts in other accounts, the final Transmission Safety Repairs write-off amount may increase further to accommodate any shortfalls." In addition, a note to the advice letter related to capital temporary facilities stated, "PG&E will file another Tier 2 Advice Letter when those projects are completed, and the associated capital expenditures have been recorded and propose a final allocation of the amounts for which PG&E shall not seek rate recovery in accordance with the Decision."<sup>24</sup>

The Advice letter and OII Settlement agreement are silent on the treatment of moving capital disallowances to expense costs in other accounts. For that reason, EY does not have sufficient information at this time to determine if disallowances were applied correctly, in accordance with the OII Settlement agreement.

<sup>21</sup> The original disallowances of \$1.625B + additional \$198M of future expenses from FRMMA and WMPMA. [Decision 20.05.019, pg. 15 and 33]

<sup>22</sup> WildfireandGasSafetyCosts\_DR\_TURN\_020-Q001Atch01.xlsx

<sup>23</sup> Advice 5842-E, pg. 2, Note 2

<sup>24</sup> Advice 5842-E, pg. 2, Note 3

*We made the following observations in our assessment of OII Disallowances*

Based on the documents and supporting schedules obtained, it appears PG&E applied the full amount of the OII disallowance, agreed upon in the final decision of the Settlement Agreement.<sup>25</sup>

Table 20 – Total OII Disallowances

OII Disallowance	Amount
PG&E Applied Disallowances	\$ 1,823,999,970
OII Settlement Agreement Disallowances	\$ 1,823,000,000
Difference	\$ 999,970

*We performed the following steps in our analysis of Insurance Proceeds*

We obtained PG&E’s accounting advice memo for applying the 2018 Camp Fire Insurance proceeds against capital expenditures<sup>26</sup> and supporting workpapers. We compared actual allocations to the support obtained.

Based on the documentation obtained, insurers paid a total of \$285M in insurance proceeds. Of the \$285M paid, \$2.2M was used for claim preparation work. Of the \$282.7M net proceeds, \$41M was applied to CEMA expenses, \$241M was applied to CEMA capital, and \$0.262M was applied to Miocene canal costs outside of the CEMA.<sup>27</sup>

Table 21 – Insurance proceeds applied to 2018 Camp Fire costs

Insurance Proceeds	Amount
Total insurance proceeds	\$ 285,000,000
Claim preparation costs	\$ (2,271,571)
Net insurance proceeds	\$ 282,728,429
(1) Butte ABL Expenses included in CEMA through 12/31/22 (CEMA)	\$ (41,220,324)
(2) Butte Capital included in CEMA through 12/31/22 (CEMA)	\$ (241,246,006)
(3) Remaining applied to Miocene canal costs (not recorded in CEMA)	\$ (262,099)

<sup>25</sup> Decision 20.05.019, pg. 15 and 33

<sup>26</sup> PG&E Accounting Advice memo, "Accounting considerations for the application of 2018 Camp Fire Insurance proceeds against capital expenditures", dated January 18, 2023.

<sup>27</sup> EY did not analyze applications of insurance proceeds outside of the CEMA account.

## Phase 2 - Findings and conclusions

### *Conclusions*

As a result of the procedures described above, we identified transactions totaling approximately \$1.9M (extrapolated to \$2.7M) that were not properly evidenced for inclusion in CEMA.

Table 22 – Observations for potential exclusion

Exclusion Type	Total Amount Excluded
Not Butte related	\$ 1,758
Not in Butte County	\$ 148,107
Outside of Butte rebuild/restoration period	\$ 1,347,783
Not reasonable/prudent	\$ 75,563
Unsupported	\$ 304,445
Total exclusions	\$ 1,877,656
Extrapolated Total	\$ 2,737,212

## Summary of findings

As a result of the procedures described above, we identified transactions totaling approximately \$2.1M (extrapolated to \$3.1M) that were not properly evidenced for inclusion in CEMA.

Table 23 - Total recommended exclusions from CEMA filing

Phase	Excluded	Extrapolated
CEMA	\$ 257,579	\$ 394,084
Butte	\$ 1,877,656	\$ 2,737,212
Total exclusions	\$ 2,135,235	\$ 3,131,296

## Appendix A – CEMA Statistical report

Pacific Gas and Electric Company  
2024  
Catastrophic Events Memorandum Account  
Sampling and Estimation Report

Prepared by  
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Aug 28, 2024

## Introduction

The purpose of the Pacific Gas and Electric Company (PG&E) 2024 catastrophic events memorandum account (CEMA) study was to estimate the total error amount for the transactions incurred in 2024 by certain vendors in CEMA. This report focuses exclusively on the statistical sampling and estimation component of the study. Decisions about the review process and the sample determinations are not part of this report.

Questions regarding the sampling and estimation methodology can be directed to Siyu Qing at (202) 327-7210 or Ryan Petska at (202) 327-7245.

## Section I: Executive summary

A stratified sample of 98 transactions was selected from a sampling population of 6,464 transactions in PG&E CEMA. Based on the results of the sample, it was estimated that the total error amount was \$239,116 with margins of error of \$130,307 and \$155,947 at a 90 and 95 percent confidence level, respectively.

Table 1 summarizes the estimation results.

Table 1. Estimation summary

Estimation Category	Estimated Amount	Margin of Error at 90% Confidence Level	Margin of Error at 95% Confidence Level
Total Error Amount	\$ 239,116	\$ 130,307	\$ 155,947

## Section II: Population

### Population

The original population contained 10,699 transactions totaling \$59,247,059<sup>28</sup> in transaction cost ("cost"). After removing debit/credit matches identified by the client and two rounds of debit/credit matches based on 1) the fields Planning Order, Order, and the absolute value of the cost and 2) the fields Purchasing Doc, CEMA Event Mapped and the absolute value of the cost, respectively, the final population consisted of 6,951 transactions totaling \$59,247,059 in cost. The final population also contained -\$59,452,090 in negative transactions (credits) which were set aside during sample design and adjusted for during estimation via a credit adjustment. Thus, the resulting sampling population contained 6,464 transactions totaling \$118,699,149 in cost.

A summary of the population is provided in Table 2.

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<sup>28</sup> After we ran our statistical sample, we identified transactions that were pulled for the wrong period. PG&E confirmed those transactions were pulled incorrectly from SAP and those lines were removed from the filing. That is why our starting population for our statistical sample is \$59M compared to our report total of \$55M, as stated in Table 1 of the report.

Table 2. Population summary

	Total Net		Positives (Debits)		Negatives (Credits)	
	Amount	Number of Records	Amount	Number of Records	Amount	Number of Records
<b>Original Data</b>	\$ 59,247,059	10,699	\$ 293,892,536	8,338	\$ (234,645,477)	2,361
- Debit/Credit Match by Client	\$ -	3,582	\$ 174,470,993	1,791	\$ (174,470,993)	1,791
- Debit/Credit Match Round 1	\$ -	74	\$ 85,269	37	\$ (85,269)	37
- Debit/Credit Match Round 2	\$ -	92	\$ 637,124	46	\$ (637,124)	46
<b>Final Population</b>	\$ 59,247,059	6,951	\$ 118,699,149	6,464	\$ (59,452,090)	487
<b>Sampling Population</b>	\$ 118,699,149	6,464	\$ 118,699,149	6,464	\$ -	-

### Sampling unit

The sampling unit was an individual transaction.

### Sampling frame

The sampling frame consisted of 6,464 transactions totaling \$118,699,149 in cost.

## Section III: Sample design

### Stratification

A stratified random sample design was used for the study. Stratified sample designs are highly efficient designs that often allow confidence and precision goals to be obtained with smaller samples than would be required with simple random samples. The population data was divided into groups, or *strata*, and each stratum was sampled separately, with different sampling rates to increase the efficiency of the design. During estimation, the sampled records were appropriately weighted to reflect the sampling rates for the different strata. In this study, the individual transaction's cost amount was used as the basis for stratification.

A certainty or take-all stratum was defined for transactions with large costs relative to the rest of the data (greater than or equal to \$2,500,000). Transactions in this stratum (stratum 4) were sampled at a rate of 100 percent in an effort to improve the stability of the estimate. The remaining non-certainty stratum boundaries were determined to approximately equalize the population size ( $Nh$ ) multiplied by the estimated standard deviation ( $Sh$ ).

The sample design is shown below in Table 3.

Table 3. Sample design summary

Stratum Number	Stratum Definition	Population Size	Population Cost	Sample Size	Sample Cost
1	\$0 to \$30,999.99	5,931	\$ 24,970,672	32	\$ 127,422
2	\$31,000 to \$299,999.99	472	\$ 37,420,564	32	\$ 2,546,585
3	\$300,000 to \$2,499,999.99	59	\$ 48,198,620	32	\$27,839,713
4	\$2,500,000 and above	2	\$ 8,109,293	2	\$ 8,109,293
<b>Total</b>		<b>6,464</b>	<b>\$ 118,699,149</b>	<b>98</b>	<b>\$ 38,623,013</b>

## Section IV: Sample selection and results

### Source and seed of random numbers

The function RANUNI in the statistical software, SAS, was used to generate the random numbers for sample selection. The seed used to generate the random numbers was 59247.

### Serialization of frame

Prior to generating random numbers in SAS, the population was sorted by the fields Planning Order, Order, CO Document Number, Posting Date, PO Item Text, PO Item, Purchasing Doc, and the cost amount. The purpose of this sort was to place the file in a reproducible and verifiable order, so the random number assignment was independent of an arbitrary frame sequence.

### Method of selection

To select the sample, the sampling frame was sorted by stratum and the random numbers described above. Thus, the entire file was put into random order within a stratum. Then, the required number of transactions per stratum was selected according to this random order. For example, the first 32 transactions in this random order were selected for stratum one.

### Sample results

The results of the sample review are available upon request. Table 4 provides a summary of the results by stratum.

Table 4. Sample results summary

Stratum Number	Stratum Definition	Population Size	Population Cost	Sample Size	Sample Cost	Sample Error Amount
1	\$0 to \$30,999.99	5,931	\$ 24,970,672	32	\$ 127,422	\$ 920
2	\$31,000 to \$299,999.99	472	\$ 37,420,564	32	\$ 2,546,585	\$ 9,382
3	\$300,000 to \$2,499,999.99	59	\$ 48,198,620	32	\$27,839,713	\$ 92,309
4	\$2,500,000 and above	2	\$ 8,109,293	2	\$ 8,109,293	\$ -
<b>Total</b>		<b>6,464</b>	<b>\$ 118,699,149</b>	<b>98</b>	<b>\$ 38,623,013</b>	<b>\$ 102,611</b>

## Section V: Estimation

Standard statistical methods were used to produce the estimates from the stratified sample. Differences in the probabilities of selection among strata were properly accounted for by statistical

weighting. The mean per unit (MPU) estimator<sup>29</sup> was used to compute the estimated total error amount.

### The MPU estimator

The MPU estimator is the weighted sum of the sample means of error amount over all strata. In stratified sampling with  $L$  strata, this can be represented as

$$\hat{\mu}_{\text{MPU}} = \sum \mu_h \mu_h,$$

where

$\mu_h$  is the number of transactions in stratum  $h$ ,  
 $\bar{\mu}_h$  is the sample mean of error amount and  
 $h = 1$  to  $L$ , the number of strata.

The standard error of the MPU estimate is given by

$$\hat{\sigma}(\hat{\mu}_{\text{MPU}}) = \sqrt{\sum \mu_h (\mu_h - \bar{\mu}_h) \sigma_{\bar{\mu}_h}^2 / \mu_h},$$

where

$$\sigma_{\bar{\mu}_h}^2 = \sum \frac{(\mu_{h\bar{\mu}} - \bar{\mu}_h)^2}{\mu_h - 1}$$

is the sample variance of error amount in stratum  $h$ .

Confidence limits were calculated from the estimate plus or minus its margin of error, where the margin of error is computed as the standard error times the Student's t-value with a 90 or 95 percent two-sided confidence.

The degrees of freedom for the t-value were approximated using the Satterthwaite formula as follows:

$$\mu_{df} = \left( \sum \mu_h \sigma_{\bar{\mu}_h}^2 \right)^2 / \sum \frac{\mu_h^2 \sigma_{\bar{\mu}_h}^4}{\mu_h - 1},$$

where

$$\sigma_{\bar{\mu}_h} = \mu_h (\mu_h - \bar{\mu}_h) / \mu_h.$$

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<sup>29</sup> Roberts, D. M. (1978) *Statistical Auditing*, American Institute of Certified Public Accounts, Inc., New York.

As a result of the Satterthwaite adjustment, the t-value used in estimation was 1.667 and 1.995 for a 90 and 95 percent confidence level, respectively.

Table 5 shows the estimated total error amount and its associated precision measures.

Table 5. Estimation results summary

	Estimated Amount	Standard Error	90% Two-sided Confidence Level			95% Two-sided Confidence Level		
			Margin of Error	Lower Bound	Upper Bound	Margin of Error	Lower Bound	Upper Bound
Total Error Amount	\$ 239,116	\$ 78,169	\$ 130,307	\$ 108,809	\$ 369,423	\$ 155,947	\$ 83,169	\$ 395,063

### Credit adjustments

The estimated total error amount was adjusted to account for the -\$59,452,090 remaining credits. The overall estimated total error amount, determined from the sample (positive amounts only), was adjusted by applying the estimated error percentage of 0.4 percent to the unmatched credits (-\$59,452,090). Therefore, the adjusted estimated total error amount was calculated as follows:

$$\$479,059 + (0.4\% * (-\$59,452,090)) = \$239,116.$$

The associated precision measures (standard error, margin of error, etc.) were adjusted in a similar fashion.

## Appendix B – Butte Statistical Report

Pacific Gas and Electric Company  
2024  
Catastrophic Events Memorandum Account  
Butte  
Sampling and Estimation Report

Prepared by  
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Aug 28, 2024

## Introduction

The purpose of the Pacific Gas and Electric Company (PG&E) 2024 catastrophic events memorandum account (CEMA) Butte study was to estimate the total error amount for the order population related to CEMA Butte rebuild costs. This report focuses exclusively on the statistical sampling and estimation component of the study. Decisions about the review process and the sample determinations are not part of this report.

Questions regarding the sampling and estimation methodology can be directed to Siyu Qing at (202) 327-7210 or Ryan Petska at (202) 327-7245.

## Section I: Executive summary

A stratified sample of 49 orders was selected from a sampling population of 8,120 orders in PG&E CEMA related to Butte rebuild costs. Based on the results of the sample, it was estimated that the total error amount was \$1,364,416 with margins of error of \$1,182,030 and \$1,428,602 at a 90 and 95 percent confidence level, respectively.

Table 1 summarizes the estimation results.

Table 1. Estimation Summary

Estimation Category	Estimated Amount	Margin of Error at 90% Confidence Level	Margin of Error at 95% Confidence Level
Total Error Amount	\$ 1,364,416	\$ 1,182,030	\$ 1,428,602

## Section II: Population

### Population

The original population contained 8,306 orders totaling \$1,148,930,902 in order cost (cost). After removing orders with zero costs, the final population consisted of 8,134 orders totaling \$1,148,930,902 in cost. The final population also contained -\$1,638,060 in negative orders (credits) which were set aside during sample design and adjusted for during estimation via a credit adjustment. Therefore, the resulting sampling population contained 8,120 orders totaling \$1,150,568,962 in cost.

A summary of the population is provided in Table 2.

Table 2. Population summary

	Total Net		Positives (Debits)		Negatives (Credits)	
	Amount	Number of Records	Amount	Number of Records	Amount	Number of Records
Original Data	\$ 1,148,930,902	8,306	\$ 1,150,568,962	8,292	\$ (1,638,060)	14
- Zero	\$ -	172	\$ -	172	\$ -	-
Final Population	\$ 1,148,930,902	8,134	\$ 1,150,568,962	8,120	\$ (1,638,060)	14
Sampling Population	\$ 1,150,568,962	8,120	\$ 1,150,568,962	8,120	\$ -	-

### Sampling Unit

The sampling unit was an individual order.

### Sampling Frame

The sampling frame consisted of 8,120 orders totaling \$1,150,568,962<sup>30</sup> in cost.

## Section III: Sample design

### Stratification

A stratified random sample design was used for the study. Stratified sample designs are highly efficient designs that often allow confidence and precision goals to be obtained with smaller samples than would be required with simple random samples. The population data was divided into groups, or *strata*, and each stratum was sampled separately, with different sampling rates to increase the efficiency of the design. During estimation, the sampled records were appropriately weighted to reflect the sampling rates for the different strata. In this study, the individual order's cost amount was used as the basis for stratification.

A certainty or take-all stratum was defined for orders with large costs relative to the rest of the data (greater than or equal to \$10,000,000). Orders in this stratum (stratum 3) were sampled at a rate of 100 percent in an effort to improve the stability of the estimate. The remaining non-certainty stratum boundaries were determined to approximately equalize the population size ( $Nh$ ) multiplied by the estimated standard deviation ( $Sh$ ).

The sample design is shown below in Table 3.

Table 3. Sample design summary

Stratum Number	Stratum Definition	Population Size	Population Cost	Sample Size	Sample Cost
1	\$0 to \$819,999.99	7,872	\$ 285,006,347	22	\$ 779,715
2	\$820,000 to \$9,999,999.99	243	\$ 593,392,722	22	\$ 55,724,487
3	\$10,000,000 and above	5	\$ 272,169,893	5	\$ 272,169,893
<b>Total</b>		<b>8,120</b>	<b>\$ 1,150,568,962</b>	<b>49</b>	<b>\$ 328,674,095</b>

<sup>30</sup> This represents the gross capital population of Butte costs.

## Section IV: Sample selection and results

### Source and seed of random numbers

The function RANUNI in the statistical software, SAS, was used to generate the random numbers for sample selection. The seed used to generate the random numbers was 11489309.

### Serialization of frame

Prior to generating random numbers in SAS, the population was sorted by the field, Order. The purpose of this sort was to place the file in a reproducible and verifiable order, so the random number assignment was independent of an arbitrary frame sequence.

### Method of selection

To select the sample, the sampling frame was sorted by stratum and the random numbers described above. Thus, the entire file was put into random order within a stratum. Then, the required number of orders per stratum was selected according to this random order. For example, the first 22 orders in this random order were selected for stratum one.

### Sample results

The results of the sample review are available upon request. Table 4 provides a summary of the results by stratum.

Table 4. Sample results summary

Stratum Number	Stratum Definition	Population Size	Population Cost	Sample Size	Sample Cost	Sample Error Amount
1	\$0 to \$819,999.99	7,872	\$ 285,006,347	22	\$ 779,715	\$ 98
2	\$820,000 to \$9,999,999.99	243	\$ 593,392,722	22	\$ 55,724,487	\$ 82,268
3	\$10,000,000 and above	5	\$ 272,169,893	5	\$ 272,169,893	\$ 422,493
<b>Total</b>		<b>8,120</b>	<b>\$ 1,150,568,962</b>	<b>49</b>	<b>\$ 328,674,095</b>	<b>\$ 504,859</b>

## Section V: Estimation

Standard statistical methods were used to produce the estimates from the stratified sample. Differences in the probabilities of selection among strata were properly accounted for by statistical weighting. The mean per unit (MPU) estimator<sup>31</sup> was used to compute the estimated total error amount.

### The MPU estimator

The MPU estimator is the weighted sum of the sample means of error amount over all strata. In stratified sampling with  $L$  strata, this can be represented as

$$\hat{\theta}_{\text{MPU}} = \sum_{h=1}^L \theta_h \bar{y}_h,$$

<sup>31</sup> Roberts, D. M. (1978) *Statistical Auditing*, American Institute of Certified Public Accounts, Inc., New York.

where

$n_h$  is the number of orders in stratum  $h$ ,  
 $\bar{e}_h$  is the sample mean of error amount and  
 $h = 1$  to  $L$ , the number of strata.

The standard error of the MPU estimate is given by

$$\hat{se}(\hat{\mu}_{MPU}) = \sqrt{\sum n_h (\bar{e}_h - \bar{e})^2 \frac{s_{Ah}^2}{n_h}},$$

where

$s_{Ah}^2 = \sum \frac{(e_{Ah} - \bar{e}_h)^2}{n_h - 1}$  is the sample variance of error amount in stratum  $h$ .

Confidence limits were calculated from the estimate plus or minus its margin of error, where the margin of error is computed as the standard error times the Student's t-value with a 90 or 95 percent two-sided confidence.

The degrees of freedom for the t-value were approximated using the Satterthwaite formula as follows:

$$df = \frac{(\sum n_h s_{Ah}^2)^2}{\sum \frac{n_h^2 s_{Ah}^4}{n_h - 1}},$$

where

$$s_h = n_h (\bar{e}_h - \bar{e}) / n_h.$$

As a result of the Satterthwaite adjustment, the t-value used in estimation was 1.721 and 2.080 for a 90 and 95 percent confidence level, respectively.

Table 5 shows the estimated total error amount and its associated precision measures.

Table 5. Estimation results summary

	Estimated Amount	Standard Error	90% Two-sided Confidence Level			95% Two-sided Confidence Level		
			Margin of Error	Lower Bound	Upper Bound	Margin of Error	Lower Bound	Upper Bound
Total Error Amount	\$ 1,364,416	\$ 686,828	\$ 1,182,030	\$ 182,385	\$ 2,546,446	\$ 1,428,602	\$ (64,186)	\$ 2,793,017

### Credit adjustments

The estimated total error amount was adjusted to account for the -\$1,638,060 remaining credits. The overall estimated total error amount, determined from the sample (positive amounts only), was adjusted by applying the estimated error percentage of 0.1 percent to the unmatched credits (-\$1,638,060). Therefore, the adjusted estimated total error amount was calculated as follows:

$$\$1,366,361 + (0.1\% * (-\$1,638,060)) = \$1,364,416.$$

The associated precision measures (standard error, margin of error, etc.) were adjusted in a similar fashion.

## Appendix C – Company documentation received

We considered policies and procedures associated with the charging and/or allocation of charges related to the Balancing Accounts, as well as Company guidance and relevant documents related to state-wide emergency proclamations, SB 901, relevant CPUC filings (including applications, decisions, and advise letters), payment approval level or authorization, and employee expense reimbursements.

Document Title	Description
1. 2020 & 2023 General Rate Cases <sup>32</sup>	2023 GRC [Application: A.21-06-021, Decision: D.23-11-069] 2020 GRC [Application: A.18-12-009, Decision: D.20-12-005]
2. Accounting Memo for 2018 Camp Insurance proceeds FINAL.pdf	Accounting considerations for the application of 2018 Camp Fire Insurance proceeds against capital expenditures
3. Fully Executed Settlement Agreement.pdf	Settlement Agreement for the period November 15, 2017, to November 15, 2018, between various Insurers and PG&E for additional payment under the insurance claim related to the Camp Fire
4. Advice Letter_ELEC_5842-E.pdf	Update of wildfire-related expenditures to be foregone by PG&E under D.20-05-019
5. Decision 20-05-019 and Decision 20-12-015	D.20-05-019 - Settlement agreement for the Investigation and Order to Show Cause (I.) for Investigation 19-06-015 ("OII"), which includes penalties and/or other remedies to address PG&E's role in the 2017 and 2018 wildfires. D.20-12-015 - Order modifying D.20-05-019
6. RAD 21-03-04	Regulatory accounting document (RAD) implementing D.20-05-019 related to 2017 and 2018 Wildfires Investigation (I.19-06-015)
7. RegulatoryAccountingDocuments_Admin-Doc_PGE_20201201_632398.pdf	CEMA Umbrella RAD - Revision 3, dated 1/12/2020
8. CEMA-2018_Plea_PGE_20210108_636947.pdf	2018 CEMA (A.18-03-015) Testimony for Third Revised CEMA Application, dated 1/8/2021
9. Resolution ESRB-4.pdf	Resolution ESRB-4

<sup>32</sup> <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-rates/general-rate-case/pacific-gas-and-electric-grc-proceedings>

10. Decision-Archive_Final-Dec_CPUC_19910724_Res-E-3238_204404.pdf	Resolution E-3238, which authorized utilities to establish Catastrophic Event Memorandum Accounts (CEMA)
11. <a href="https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB901">https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB901</a>	California Senate Bill (SB) 901
12. Public Utilities Code Section 454.9	Public Utilities Code Section 454.9
13. NARUC-Ratecase-and-Audit-Manual-2003.pdf	NARUC Rate Case and Audit Manual 2003
14. IBEW 2022-2025 Physical Agreement.pdf	Labor agreement between PG&E and IBEW Local Union 1245, effective January 1, 2022
15. FIN-2210S_FIN-2210S+Employee+Business+Expense+and+Travel+Standard.pdf	PG&E Employee Business Expenses and Travel Standard
16. FIN-1117S_FIN-1117S+Indirect+Labor+Overhead+Standard.pdf	PG&E Indirect Labor Overhead Standard
17. Current & Future Overheads Allocations Guidance Provided_2023.png	Overhead Allocation Guidance
18. Business Finance Training - Introduction to the Cost Model.pptx	Business Finance training document on Cost Model including cost model overview, cost center types, orders, overheads, and planning overview
19. Memo-EmployeeExpenseThreshold.docx	Memo explaining thresholds and policies for Employee Expense
20. Memo-MileageReimbursementPolicy.docx	Memo explaining mileage reimbursement policy

**PACIFIC GAS AND ELECTRIC COMPANY**  
**APPENDIX B**  
**STATEMENTS OF QUALIFICATIONS**

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF JOSEPH AU**

3    Q 1    Please state your name and business address.

4    A 1    My name is Joseph Au, and my business address is Pacific Gas and Electric  
5           Company (PG&E), 300 Lakeside Drive, Oakland, California.

6    Q 2    Briefly describe your responsibilities at PG&E.

7    A 2    I am a Manager in the Customer Care Pricing Products organization,  
8           overseeing the implementation of various customer rate products and pilots,  
9           including the Percentage of Income Payment Plan Pilot.

10   Q 3   Please summarize your educational and professional background.

11   A 3    I graduated from the University of California, Davis with two bachelor's  
12           degrees, in Psychology and Communications respectively. I have worked  
13           over 20 years in the utility industry and have held various positions in  
14           Engineering, Customer Relations, Finance, and currently in Pricing  
15           Products. In my most recent position in Pricing Products, I have been  
16           involved with implementing the Residential Time-Of-Use (TOU) initiative to  
17           transition over two million residential customers to a TOU rate. In addition,  
18           my team is currently leading the Percentage of Income Payment Plan Pilot.

19   Q 4    What is the purpose of your testimony?

20   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
21           Wildfire Mitigation and Catastrophic Events Application:

- 22           • Chapter 9, "Other Miscellaneous Memorandum Accounts":  
23                – Section E; and  
24           • Workpapers supporting the Chapter 9 section listed above.

25   Q 5    Does this conclude your statement of qualifications?

26   A 5    Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF NATHAN BENGTTSSON**

3 Q 1 Please state your name and business address.

4 A 1 My name is Nathan Bengtsson, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I am a Senior Manager in the Engineering Planning & Strategy Group at  
8 PG&E and I oversee the Climate Resilience Team.

9 Q 3 Please summarize your educational and professional background.

10 A 3 I received a Bachelor of Arts in International Relations from Claremont  
11 McKenna College. From 2015 to 2017, I was a Senior Representative  
12 focused on climate issues for PG&E and I was charged with being an  
13 internal policy strategist, stakeholder organizer, and representative to  
14 California's key energy and climate agencies. From 2018 to 2021, I was a  
15 principal on PG&E's Climate Resilience Team. In this role, I worked on a  
16 broad array of issues; acted as the climate resilience policy advocate; and  
17 managed key internal climate resilience initiatives, including working on the  
18 company's Climate Change chapters and testimony for the 2023 General  
19 Rate Case and 2020 Risk Assessment and Mitigation Phase filings.  
20 Currently, I am acting as the team lead for PG&E's Climate Resilience  
21 group, which is conducting the Climate Vulnerability Assessment (CVA) that  
22 will be filed with the California Public Utilities Commission in 2024. The CVA  
23 is an enterprise-wide assessment of PG&E's exposure to, risk from, and  
24 adaptation capacity of climate hazards to infrastructure, operations and  
25 services due to the expected impacts from climate change in 2030, 2050,  
26 and 2080.

27 Q 4 What is the purpose of your testimony?

28 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
29 Wildfire Mitigation and Catastrophic Events Application:

- 30 • Chapter 8, "Climate Adaptation Vulnerability Assessment Memorandum  
31 Account"; and  
32 • Workpapers supporting Chapter 8.

- 1 Q 5 Does this conclude your statement of qualifications?
- 2 A 5 Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF AARON R. CORTES**

3    Q 1     Please state your name and business address.

4    A 1     My name is Aaron R. Cortes, and my business address is Pacific Gas and  
5            Electric Company (PG&E), 12840 Bill Clark Way, Auburn, California.

6    Q 2     Briefly describe your responsibilities at PG&E.

7    A 2     As a Director of Hydro Operations and Maintenance (O&M), I provide  
8            oversight to the Hydroelectric O&M team for PG&E. I oversee the response  
9            to and recovery from operational emergencies within my geographic  
10           territory, approximately Burney to Fresno. This includes water  
11           manipulations, power generation, and public safety mitigations during  
12           normal operations and emergency operations such as major storm events  
13           and fires.

14   Q 3     Please summarize your educational and professional background.

15   A 3     I have been with PG&E for 15 years. In the Nuclear Unit as a Senior  
16            Reactor Operator (10 years) and Mechanical Maintenance Manager  
17            (5 years) before taking on my current assignment. I have been the Director  
18            of Hydro O&M for three years as of January 4, 2024.

19   Q 4     What is the purpose of your testimony?

20   A 4     I am sponsoring the following testimony and workpapers in PG&E's 2024  
21            Wildfire Mitigation and Catastrophic Events Application:

- 22            • Chapter 5, "Power Generation: CEMA"; and  
23            • Workpapers supporting Chapter 5.

24   Q 5     Does this conclude your statement of qualifications?

25   A 5     Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF MIA GILBERT**

3 Q 1 Please state your name and business address.

4 A 1 My name is Mia Gilbert, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I am the Director of the Energy Accounting team, overseeing regulatory  
8 accounting associated with PG&E's balancing and memorandum accounts  
9 within the California Public Utilities Commission jurisdiction as well as the  
10 Transmission Owner Formula Rate within the Federal Energy Regulatory  
11 Commission jurisdiction for electric transmission. My responsibilities also  
12 include overseeing the creation, modification, and closure of balancing and  
13 memorandum accounts.

14 Q 3 Please summarize your educational and professional background.

15 A 3 I hold a Bachelor of Science in Accounting from Saint Mary's College of  
16 California. I joined PG&E in 2011 and have held various positions within the  
17 Finance Organization including: Manager of Capital Advice, Asset  
18 Accounting, and Business Finance Electric Operation teams; Senior  
19 Manager of Energy Accounting. I was appointed my current role of Director  
20 of Energy Accounting in March 2024. Prior to joining PG&E, I worked in the  
21 audit practice at KPMG for 4 years. I also hold my Certified Public  
22 Accountant license (inactive).

23 Q 4 What is the purpose of your testimony?

24 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
25 Wildfire Mitigation and Catastrophic Events Application:

- 26 • Chapter 3, "Butte Community Rebuild":  
27 – Section F.

28 Q 5 Does this conclude your statement of qualifications?

29 A 5 Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF LORENZO HAGOS**

3 Q 1 Please state your name and business address.

4 A 1 My name is Lorenzo Hagos, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 3136 Boeing Way, Stockton, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I am the Manager of Credit Policy, in the Credit Policy and Operations  
8 department within Customer Operations and Enablement. As such,  
9 I oversee approximately five management level staff tasked with supporting  
10 operational and regulatory policies and compliance.

11 Q 3 Please summarize your educational and professional background.

12 A 3 I received a Bachelor of Science degree in Business Administration from  
13 Sacramento State University in 1996. I joined PG&E in 2003 as a Customer  
14 Service Representative, before moving to Customer Care Credit and  
15 Collections, where I spent approximately seven years. While in Credit and  
16 Collections, I assumed roles of: Analyst, Supervisor, and Team Lead.  
17 I transitioned to the position of Business Analyst, Expert within the Customer  
18 Operation Chief of Staff Office in 2011 where I provided cross-function  
19 support of various lines of businesses which included Billing, Credit, Bill  
20 Print and Mail, Meter Service and Engineering, and Field Meter Operations.  
21 In 2020, I assumed my current role as Manager of Credit Policy.

22 Q 4 What is the purpose of your testimony?

23 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
24 Wildfire Mitigation and Catastrophic Events Application:

- 25 • Chapter 9, "Other Miscellaneous Memorandum Accounts":
  - 26 – Sections C, D, and F; and
- 27 • Workpapers supporting the Chapter 9 section listed above.

28 Q 5 Does this conclude your statement of qualifications?

29 A 5 Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF DECLAN KENNA**

3    Q 1    Please state your name and business address.

4    A 1    My name is Declan Kenna, and my business address is Pacific Gas and  
5            Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6    Q 2    Briefly describe your responsibilities at PG&E.

7    A 2    I am employed by PG&E as Director, Financial and Revenue Accounting. In  
8            that role, I lead the financial, benefits and other revenue accounting teams  
9            and am responsible for providing financial expertise and support in state and  
10           federal regulatory proceedings.

11   Q 3    Please summarize your educational and professional background.

12   A 3    I joined PG&E in 2012 and have held various positions of increasing  
13            responsibility, including Manager, Accounting Advice and External  
14            Reporting; Manager, Sarbanes-Oxley (SOX) Compliance; Senior Manager,  
15            SOX Compliance; Director of SOX Compliance and Third Party Risk  
16            Management; and my current role as Director, Financial and Revenue  
17            Accounting. Prior to PG&E, I worked in the finance and accounting  
18            departments of Tucson Electric Power and Schlumberger. I am a member  
19            of Association of Chartered Certified Accountants, a globally recognized  
20            professional accountancy body.

21   Q 4    What is the purpose of your testimony?

22   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
23            Wildfire Mitigation and Catastrophic Events Application:

- 24            • Chapter 9, "Other Miscellaneous Memorandum Accounts":  
25                – Section F; and  
26            • Workpapers supporting the Chapter 9 section listed above.

27   Q 5    Does this conclude your statement of qualifications?

28   A 5    Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF TRACEY LATIPOW**

3    Q 1    Please state your name and business address.

4    A 1    My name is Tracey Latipow, and my business address is Pacific Gas and  
5            Electric Company (PG&E), 3301 Crow Canyon Road, San Ramon,  
6            California.

7    Q 2    Briefly describe your responsibilities at PG&E.

8    A 2    I am the Director of Emergency Operations Center Response and  
9            Operations in the Emergency Preparedness and Response Organization.  
10           Prior to my current role, I was Director, Emergency Preparedness and  
11            Response, Strategy and Execution.

12   Q 3    Please summarize your educational and professional background.

13   A 3    I received a Bachelor of Science Degree in Environmental Toxicology from  
14            University of California, Davis in 1994. I have held numerous positions  
15            within PG&E over the past 15 years including in the emergency organization  
16            at Diablo Canyon Power Plant. I have 30 years of experience in emergency  
17            management that includes Federal, State, County, City, and PG&E  
18            emergency preparedness and response activities.

19   Q 4    What is the purpose of your testimony?

20   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
21            Wildfire Mitigation and Catastrophic Events Application:

- 22            • Chapter 4, "Gas: CEMA";  
23            • Chapter 4, Attachment A, "Additional Material"; and  
24            • Workpapers supporting Chapter 4.

25   Q 5    Does this conclude your statement of qualifications?

26   A 5    Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF DAVID LO**

3    Q 1    Please state your name and business address.

4    A 1    My name is David Lo, and my business address is Pacific Gas and Electric  
5            Company (PG&E), 5555 Florin Pekins Road 105/105U Sacramento,  
6            California.

7    Q 2    Briefly describe your responsibilities at PG&E.

8    A 2    I am the Director of the Cybersecurity Risk Management department for  
9            PG&E's Enterprise Protection organization. This includes overseeing the  
10           core functions of Cybersecurity Risk Management, which entails working  
11           with business stakeholders to identify the company's cybersecurity risks and  
12           developing enterprise strategies to appropriately manage those risks.

13   Q 3    Please summarize your educational and professional background.

14   A 3    I have over 17 years of experience working in the fields of technology, risk  
15           management, compliance, and cybersecurity within the utility industry.  
16           I have spent the last 16 years in various leadership roles, including 10 years  
17           within PG&E's Cybersecurity organization. I hold a Bachelor of Arts degree  
18           in History from California State University, Fresno, and a Master of Business  
19           Administration degree from University of Phoenix. In addition, I hold a  
20           Certified Information Security Manager and Certified Risk and Information  
21           System Control certifications.

22   Q 4    What is the purpose of your testimony?

23   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
24           Wildfire Mitigation and Catastrophic Events Application:

- 25           • Chapter 6, "Gas Statutes Regulations and Rules Memorandum  
26            Account":  
27            – Section B; and  
28           • Workpapers supporting the Chapter 6 section listed above.

29   Q 5    Does this conclude your statement of qualifications?

30   A 5    Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF KARLI MAEDA**

3 Q 1 Please state your name and business address.

4 A 1 My name is Karli Maeda, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 6121 Bollinger Canyon Road, San Ramon,  
6 California.

7 Q 2 Briefly describe your responsibilities at PG&E.

8 A 2 I am the Senior Manager of Gas Regulation Services. I am also the Asset  
9 Family Owner for Measurement and Control assets where the focus is on  
10 the safety and reliability of gas transmission and distribution station facilities.  
11 I oversee the related risk and asset management activities.

12 Q 3 Please summarize your educational and professional background.

13 A 3 I received a Bachelor of Science degree in Mechanical Engineering from  
14 University of California, Los Angeles, in 2000. I am a California-Registered  
15 Professional Engineer in Mechanical Engineering and have 23 years of  
16 experience in gas engineering and operations. I am also a member of the  
17 American Gas Association and serve on the Gas Transmission  
18 Measurement Committee. Since joining PG&E's Gas Department in 2011,  
19 I have held a wide range of responsibilities for PG&E's Gas Operations  
20 Department related to: gas quality, PG&E's underground storage facilities,  
21 compressor stations, pipeline terminals, pressure regulation stations, and  
22 other facilities.

23 Q 4 What is the purpose of your testimony?

24 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
25 Wildfire Mitigation and Catastrophic Events Application:

- 26 • Chapter 6, "Gas Statutes, Rules and Regulations Memorandum  
27 Account":
  - 28 – Section C; and
- 29 • Workpapers supporting the Chapter 6 section listed above.

30 Q 5 Does this conclude your statement of qualifications?

31 A 4 Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF JOSEPH METCALF**

3 Q 1 Please state your name and business address.

4 A 1 My name is Joseph Metcalf, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I am the Program Manager for the Temporary Generation team within the  
8 Transmission Substation Maintenance and Construction group,  
9 Electric Operations. I am responsible for temporary generation contracts,  
10 negotiations, and procurements. My team operationalizes the Public Safety  
11 Power Shutoff (PSPS) selected sites prior to the PSPS season. I also  
12 support the Temporary Generation branch for the Emergency Operations  
13 Center that supports temporary generation deployments during PSPS  
14 events.

15 Q 3 Please summarize your educational and professional background.

16 A 3 I was a Licensed General Contractor, state of California from 1988-2011.  
17 I received a Certificate of Construction Management in 2012, and in  
18 Project Management in 2016, from California State University, East Bay.  
19 I was an Electric Distribution Superintendent at PG&E from 2011-2016;  
20 a PG&E Contract Management Manager from 2016-2018; and have been a  
21 Program Manager since 2018.

22 Q 4 What is the purpose of your testimony?

23 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
24 Wildfire Mitigation and Catastrophic Events Application:

- 25 • Chapter 9, "Other Miscellaneous Memorandum Accounts":  
26 – Section G; and  
27 • Workpapers supporting the Chapter 9 section listed above.

28 Q 5 Does this conclude your statement of qualifications?

29 A 5 Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF ANNETTE G. QUON**

3 Q 1 Please state your name and business address.

4 A 1 My name is Annette G. Quon, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I am responsible for the financial analysis and modeling for incremental cost  
8 recovery filings, including the development of the Results of Operations  
9 models, along with supporting estimates and related testimony. I am an  
10 Expert Analyst in the Capital Accounting and Regulatory Recovery section  
11 of the Finance and Risk Department, where I am responsible for producing  
12 and preparing the revenue requirement models and along with related  
13 testimony. Additionally, I have been a witness assistant for a prior Wildfire  
14 Mitigation and Catastrophic Events cases and have assisted witnesses in  
15 numerous Transmission Owner cases and General Rate Cases (GRC).

16 Q 3 Please summarize your educational and professional background.

17 A 3 I received a Business Administration degree with a concentration in  
18 Accounting from San Francisco State University in 2000. Since then, I have  
19 worked for Certified Public Accountant firms, Arthur Andersen LLP and  
20 Deloitte & Touche LLP, as a Senior Tax Associate, supporting their State  
21 and Local tax groups. My primary responsibilities during my tenure at both  
22 firms, include preparing and reviewing Federal and State tax returns, tax  
23 research and correspondence with the Internal Revenue Service and state  
24 agencies concerning client tax issues. I joined PG&E in 2005 as a Tax  
25 Analyst and was promoted to a Senior Tax Analyst in 2007. During my  
26 tenure in the Company's Tax Department, I supported Audit, Compliance,  
27 Regulatory and Tax Accounting functions. From June 2018 to April 2020,  
28 I worked as a Revenue Requirement Senior Analyst, supporting Federal  
29 Energy Regulation Commission Transmission Owner Tariff rate cases and  
30 the California Public Utilities Commission GRC as a witness assistant in the  
31 Administrative and General Expenses area. In July 2023, I started my  
32 current position as an Expert Revenue Requirements Analyst.

1 Q 4 What is the purpose of your testimony?  
2 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
3 Wildfire Mitigation and Catastrophic Events Application:  
4 • Chapter 12, "Revenue Requirement"; and  
5 • Workpapers supporting Chapter 12.  
6 Q 5 Does this conclude your statement of qualifications?  
7 A 5 Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF LUCY REDMOND**

3    Q 1    Please state your name and business address.

4    A 1    My name is Lucy Redmond, and my business address is Pacific Gas and  
5            Electric Company (PG&E), 6121 Bollinger Canyon Road, San Ramon,  
6            California.

7    Q 2    Briefly describe your responsibilities at PG&E.

8    A 2    I am Director of Facilities and Storage Engineering. I joined PG&E in 2014.  
9            I am responsible for the Asset management of the underground storage  
10            natural gas assets and oversees the Facility Integrity Management Program  
11            that is focused on the safety and reliability of gas transmission and  
12            distribution station facilities. Prior to the Director role, I served as Manager  
13            of the Reservoir Engineering Integrity Management team, Asset  
14            Management Principal overseeing the risk and asset management activities  
15            for the Storage asset family, as well as various roles in the Gas Operations  
16            Compliance Department.

17   Q 3    Please summarize your educational and professional background.

18   A 3    I received a Bachelor of Science degree in Architectural Engineering and a  
19            Master of Science degree in Architecture with a Specialization in  
20            Architectural Engineering from California Polytechnic State University,  
21            San Luis Obispo. I am a member of the American Gas Association and  
22            participate and presented to the Underground Storage Technical Committee  
23            where I serve as chair of the Integrity Management task group. Prior to  
24            joining PG&E, I have held various structural engineering positions at  
25            San Francisco Bay Area structural engineering firms.

26   Q 4    What is the purpose of your testimony?

27   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
28            Wildfire Mitigation and Catastrophic Events Application:  
29            • Chapter 7, "Gas Storage Balancing Account"; and  
30            • Workpapers supporting Chapter 7.

31   Q 5    Does this conclude your statement of qualifications?

32   A 5    Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF LA KEISHA STEWART**

3 Q 1 Please state your name and business address.

4 A 1 My name is La Keisha Stewart, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 5555 Florin-Perkins Road, Sacramento, CA  
6 95826-4815.

7 Q 2 Briefly describe your responsibilities at PG&E.

8 A 2 From 2021-2024 I lead the Community Rebuild and Resiliency Program as  
9 the Senior Manager responsible for managing the scope, schedule, budget,  
10 and community engagement. I am currently the Director of the Lean Yard  
11 Expansion Team, responsible for implementing our PG&E's Lean standards  
12 within Operations.

13 Q 3 Please summarize your educational and professional background.

14 A 3 I have a bachelor's degree in liberal arts from Harvard University with a  
15 concentration in Social Science and over 25 years of utility experience,  
16 including 17 years with PG&E. My PG&E experience includes providing  
17 administrative support to both Electric and Gas Operations in addition to  
18 supporting ratepayers in customer facing roles within Customer Care.  
19 I helped develop Enterprise Records and Information Management's Gas  
20 Operations records compliance team and I have held leadership roles in a  
21 variety of programs throughout my time with PG&E, most notably as the  
22 Manager of Transmission Operation's North American Electric Reliability  
23 Corporation Critical Infrastructure Protection Audit Readiness team and as  
24 the Principal Outreach Specialist, leading customer relations for Camp Fire  
25 victims.

26 Q 4 What is the purpose of your testimony?

27 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
28 Wildfire Mitigation and Catastrophic Events Application:

- 29 • Chapter 3, "Butte Community Rebuild":
  - 30 – Sections A.1, A.3, C, D, F;
- 31 • Chapter 3, Attachment A, "Original and Updated Workpaper 23-13";
- 32 • Chapter 9, "Other Miscellaneous Memorandum Accounts":
  - 33 – Section B; and

- 1 • Workpapers supporting the chapter sections listed above.
- 2 Q 5 Does this conclude your statement of qualifications?
- 3 A 5 Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF ISAAC TAM**

3    Q 1    Please state your name and business address.

4    A 1    My name is Isaac Tam, and my business address is Pacific Gas and Electric  
5           Company (PG&E), 300 Lakeside Drive, Oakland, California.

6    Q 2    Briefly describe your responsibilities at PG&E.

7    A 2    I am an Expert Revenue Requirement Analyst in the Expense Recover and  
8           Analysis section of the Revenue Requirements and Cost Recovery (RRCR)  
9           Department, where I am responsible for the analysis and preparation of  
10          electric and gas operations and maintenance and administrative and general  
11          expenses for PG&E's various rate cases.

12   Q 3    Please summarize your educational and professional background.

13   A 3    I received a Bachelor of Arts degree in Economics from the University of  
14          California Berkeley in 2014 and a Master of Science degree in Taxation from  
15          Golden Gate University in 2019. From 2018 – present, I worked at PG&E.  
16          In 2018, I started as a Revenue Requirement Analyst supporting Generation  
17          operations and maintenance expenses for the 2020 General Rate Case  
18          (GRC) as a witness assistant. In 2020, I worked as a Senior Revenue  
19          Requirement Analyst, producing and preparing the revenue requirement  
20          models along with related testimony for GRC and PG&E's incremental  
21          cases. Since 2024, I work as an Expert Revenue Requirement Analyst for  
22          the RRCR. I support the gas operations and maintenance expenses for the  
23          2027 GRC as a witness assistant and 2024 Wildfire Mitigation and  
24          Catastrophic Events filing as a Witness.

25   Q 4    What is the purpose of your testimony?

26   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
27          Wildfire Mitigation and Catastrophic Events Application:

- 28          • Chapter 11, "Accounting of Costs"; and
- 29          • Workpapers supporting Chapter 11.

30   Q 5    Does this conclude your statement of qualifications?

31   A 5    Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF MARCUS J. WENDLER**

3 Q 1 Please state your name and business address.

4 A 1 My name is Marcus J. Wendler, and my business address is Pacific Gas  
5 and Electric Company (PG&E), 1220 Anderson Dr, San Rafael, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I am an Electric Program Manager, Principal, within the Emergency and  
8 Restoration in the Electric Distribution Operations organization. My primary  
9 function is the program management of the Catastrophic Event  
10 Memorandum Account (CEMA) electric distribution program. I have  
11 provided testimony in support of several prior PG&E cost recovery  
12 applications for CEMA costs.

13 Q 3 Please summarize your educational and professional background.

14 A 3 I received a Bachelor of Science degree in Business Administration from the  
15 California State University Stanislaus, and a Master's of Business  
16 Administration from Golden Gate University. In 2011, I obtained my Project  
17 Management Certification from Project Management Institute. I have been a  
18 PG&E employee since 2012 working within the Electric and Gas Operations  
19 since that time.

20 Q 4 What is the purpose of your testimony?

21 A 4 I am sponsoring the following testimony and workpapers in PG&E's 2024  
22 Wildfire Mitigation and Catastrophic Events Application:

- 23 • Chapter 2, "Electric: CEMA";  
24 • Chapter 2 Attachment A, "Electric Emergency Response Activities"; and  
25 • Workpapers supporting Chapter 2.

26 Q 5 Does this conclude your statement of qualifications?

27 A 5 Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF STEPHANIE WILLIAMS**

3    Q 1    Please state your name and business address.

4    A 1    My name is Stephanie Williams, and my business address is Pacific Gas  
5           and Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6    Q 2    Briefly describe your responsibilities at PG&E.

7    A 2    I am Vice President, Controller, Utility Chief Financial Officer and I am  
8           responsible for the accounting, external reporting, tax and financial  
9           regulatory processes at PG&E.

10   Q 3    Please summarize your educational and professional background.

11   A 3    I joined PG&E in 2010 and have held numerous leadership positions in  
12           PG&E's Finance Department including: leading the Corporate Accounting,  
13           Technical Accounting, and the International Financial Reporting Standards  
14           teams; serving as the Director of Information Technology Business Finance,  
15           Director of Business Finance Gas Operations and Senior Director Business  
16           Finance, Electric Operations. I additionally served as Vice President,  
17           Finance and Planning prior to being appointed to my current role in  
18           January 2023. Prior to joining PG&E, I worked in the assurance practice at  
19           Ernst and Young, where I became a Certified Public Accountant. I hold a  
20           Bachelor of Science in Accounting from the University of Southern  
21           California.

22   Q 4    What is the purpose of your testimony?

23   A 4    I am sponsoring the following testimony and workpapers in PG&E's 2024  
24           Wildfire Mitigation and Catastrophic Events Application:

- 25           • Chapter 1, "Introduction and Overview"; and  
26           • Workpapers supporting Chapter 1.

27   Q 5    Does this conclude your statement of qualifications?

28   A 5    Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**  
2 **STATEMENT OF QUALIFICATIONS OF JOE WILSON**

3 Q 1 Please state your name and business address.

4 A 1 My name is Joe Wilson, and my business address is Pacific Gas and  
5 Electric Company (PG&E), 300 Lakeside Drive, Oakland, California.

6 Q 2 Briefly describe your responsibilities at PG&E.

7 A 2 I serve as the Vice President for the North Valley and Sierra Region for  
8 PG&E. Before assuming this regional leadership role in June of 2021,  
9 I served as the Director of the Community Rebuild Program from  
10 February 2019 – May 2021. In this role I led the cross-functional team  
11 planning and executing the work of rebuilding gas and electric infrastructure  
12 in Butte County post wildfire.

13 Q 3 Please summarize your educational and professional background.

14 A 3 I have over 22 years' experience leading utility and public works operations.  
15 Prior to my service at PG&E; from 2006-2012 I served as the Director of  
16 Facility Services and Airports for Plumas County, and from 2002-2006  
17 I served as the General Manager for the Indian Valley Community Services  
18 District providing water, wastewater, fire, recreation and lighting services to  
19 three communities in Plumas County.

20 Q 4 What is the purpose of your testimony?

21 A 4 I am sponsoring the following testimony in PG&E's 2024 Wildfire Mitigation  
22 and Catastrophic Events Application:

- 23 • Chapter 3, "Butte Community Rebuild":
  - 24 – Section A.2.

25 Q 5 Does this conclude your statement of qualifications?

26 A 5 Yes, it does.

1                                   **PACIFIC GAS AND ELECTRIC COMPANY**  
2                                   **STATEMENT OF QUALIFICATIONS OF CHRISTOPHER WONG**

3    Q 1     Please state your name and business address.

4    A 1     My name is Christopher Wong, and my business address is Pacific Gas and  
5            Electric Company (PG&E), 300 Lakeside Drive, Oakland, CA.

6    Q 2     Briefly describe your responsibilities at PG&E.

7    A 2     I am a Senior Manager in Business Finance specifically supporting, Electric  
8            Operations and Wildfire Emergency Operations. I oversee the financial end  
9            to end process for the Wildfire Mitigation Plan, the finance team for the  
10           Emergency Operations Center. I also manage the financials for CEMA  
11            Electric Operations as well.

12   Q 3     Please summarize your educational and professional background.

13   A 3     I have a Bachelors in Science in Managerial Economics from UC Davis. I  
14            have over 13 years of professional experience in Consulting and Finance  
15            ranging from Big 4 experience at Deloitte, technology start-ups, and over  
16            eight years at PG&E.

17   Q 4     What is the purpose of your testimony?

18   A 4     I am sponsoring the following testimony in PG&E's 2024 Wildfire Mitigation  
19            and Catastrophic Events Application:

- 20            • Chapter 3 "Butte Community Rebuild":
  - 21                – Section B; and
- 22            • Chapter 10, "Incrementality."

23   Q 5     Does this conclude your statement of qualifications?

24   A 5     Yes, it does.